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Commentary

- 6 From the Editor
- 8 Letters

New & Notable

- 10 What's New

Digital Photography

- 12 Digital camera outlook: Something for everyone as 2003 shows maturity, stability
- 12 Shipping for a digital camera
- 26 Photographer stores images, tunes
- 22 Shirt-pocket stowaways
- 24 Breakthrough scanner flawed
- 44 Inexpensive utilities for digital photography
- 60 Aunt Abigail creates order from photo chaos
- 70 Opinions: Why I don't want a DSLR... yet
- 70 Picture Window Pro 3.1: The photographer's photo editor

- 74 A Photoshop guide: Just for photographers
 - 74 Photoshop in the raw
 - 78 Five megapixels for big shots
 - 84 The slideshow goes digital
- ## Hands On
- 88 Triple (and quadruple) threats: ZIP Lab tests widget-based multifunction printers
 - 40 Computing on the go redux: New notebooks, better battery life

Small Office Technology

- 48 Office Suite Training: Formatting PowerPoint slides
- 64 Quick Tips: Toolbar tricks for Word

Platform News

- 54 Making the Switch: Macs can no longer just talk amongst themselves
- 56 Apple News: Smaller iPods get capacity boost, iTunes upgraded
- 78 Strong Linux: Content, virus filtering

Online & Connected

- 55 Sharing your own Web site, finally formatting using CSS

Careers & Training

- 80 IT review: Mac, typography, PowerPoint tutorial

Reader Services

- 76 Training Listings
- 82 Business Directory
- 83 Classifieds
- 84 Advertising Index

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= COMMENTARY =

What's 48,536 bytes between friends



labeled 64 MB shows 32 MB and 32 MB is 32 x MB. It looks as though we are being misled about the actual capacity of CF cards.

Barclay Grogg

XP replied, "This discrepancy arises from the practice of shifting "mega" or million (thus, a megabyte is defined as 1,048,608 bytes) rather than using the binary system (where a megabyte is 2 to the power of 20, or 1,048,576 bytes). If you divide 256,252,256 bytes by one million you get roughly 256, but if you divide the same number by 1,048,576 you get 244 (which is also what the computer shows because it is using the binary system). Hard drive makers started this practice a few years ago by stating drive capacities this way, and it now seems to be common."

Athlon XP vs Pentium 4 assembly

The "Processor Wars" chart (XCP June 2001) shows the Athlon XP 3000+ is slower, much slower, in all categories except FPU/S. Since there is no comment in the article on this anomaly, I assume it is a typo. Is this a typo and what is the correct value?

No name provided. Sean Conrath replies: Actually, for the Pentium 4 processors you'll notice two numbers separated by a slash under the Whetstone rating. The first number is the result achieved by the processor without SSE2 extensions turned on, and the second number is with those extensions turned on. The second number is the processor working at full capacity, and those numbers are all substantially higher than that of the Athlon. It was my fault this wasn't labeled more clearly.

Is all ink created equally?

I just read the reply to Jan Herman ("Reader's Letters," XCP April 2001) and I've rarely read such a reprint... Ink is ink for goodness sake. It's been around for

a few hundred years, and I don't believe its manufacture involves many great secrets. As for ink being designed for very fine needles: what particular property of the ink is so sacred? Viscosity? Cleanliness? Density? No great secrets here, surely?

Then there's the leaking cartridge. You don't have to pry a cartridge apart to fill it. You can drill a little hole in the top and put the ink in with a syringe supplied in the refill kit. I've refilled a lot of Canon cartridges that way, quite successfully. My Epson C40 printer has me beaten, however. It simply refuses to pass any ink once the factory-installed capacity is exhausted.

Sean Conrath's went on to warn students that the manufacturer has every right to refuse to honor the printer warranty if a cartridge leak has caused a failure. Big deal! Today in our local Future Shop, I saw a new Epson printer, similar in specification to my one-year-old model, whose price is less than the combined price of the black-and-white and colored cartridges. I need to refill my C 40! But in to the garage goes my C 40 toner, and welcome to a new Epson complete with two cartridges later in the day.

Isn't this a scandalous situation? Just think of it from an ecological point of view, let alone one of consumer rights.

Martin Brannan, Ottawa

Sean replies: I totally agree with you that there's something awry when it costs less to buy a new printer than it does to replace the cartridges for your old printer. It's gotten to the point when the most value-added printers—most of which are perfectly capable of photographic reproduction—are at the point of being disposable for that reason alone.

As for whether "ink is ink," I disagree, manufacturers formulate ink to react properly when the printer hits it with the signal to eject. The Epson printer uses a minute electrical charge to eject the ink, which is one reason you may have had problems with the refills. It just may not be reacting properly to that tiny zap. On the other side, the thermal inkjet printers use a little shot of intense heat, and if the refill ink doesn't have exactly the right thermal properties, it may eject in a very messy fashion. That's not to say that it won't eject, it just may not be optimal. Of course, if the refill ink is too thick, it won't eject at all, it will simply gum up the nozzles. □

WHAT'S NEW

By Tom Igoe

Now that summer's here, Canadians face head-wrenching decisions: whether to go out and play while the weather is nice, or stay in to catch the next installment of that favorite TV show. Well, here's a way to do both: Archos (www.archos.com) has released the Video MP120—a portable digital recorder with a 20-GB hard drive that will record and play MPEG-4 video, in addition to the more standard MP3 audio format.



With the addition of a digital video recorder module, users can record and play back up to 40 hours of video record-

ing from a TV camcorder, or video player, according to Archos. The device has a built-in 230x234 LCD screen, or can be connected to a TV for playback.

The MP120 can be used to play MP3 or display digital photos as well. Other accessories include a digital camera attachment, an FM radio tuner and memory card readers in a variety of formats.

The device measures up at 10.5x7.5x2.8 cm (4.1x3.0x1.1 in.) and weighs 290 g (10.23 oz.). It's Windows and Mac compatible and connects via USB 2.0 for data transfer. The Video MP120 is priced at US\$199.95, and the Video Recorder module will add another US\$55.95 to the bottom line.

When the first electric guitar made its debut more than 70 years ago, few could have predicted the way it would revolutionize music. So who knows what the long-term effect of electric their music might be? **Freehead Systems' (www.freehead.com)** **Marched Pro** is a tablet-style computer that can store up to 5,000 pages of music, according to the company, which musicians then read directly off the backlit.

Spotlight



Raffle lovers can finally record now, digital-style. Tired of it or something like a two-in-one device? **Digitize Raffle**, from **Protek Products** (www.protek.com), is a desktop, laptop, or PDA-compatible device that lets raffle players scan tickets, record numbers, and print a record of the draw. With the portable version, the device can be used anywhere, so it's like a raffle machine. The desktop version can be used for a raffle game, or as a raffle machine. The portable version can be used for a raffle game, or as a raffle machine. The desktop version can be used for a raffle game, or as a raffle machine.

12.1-inch TFT LCD display. Pages are turned with a touch of the screen, or with an optional foot pedal.



Digital music can be directly imported to the Marched Pro in popular graphics file formats such as PDF or JPEG, or users can scan their music into a PC and download it to the device. The interface allows users to make rehearsal marks and tabs in their own handwriting on the screen, and erase them when they're no longer needed.

The **Marched Pro** measures 33.0x15.1x4.6 cm (13.0x5.9x1.8 in.) and weighs just under 2.25 kg (5 lb.), according to Freehead Systems. There are two models available: the basic model runs on AC power, and comes with 32 MB flash memory and 64 MB RAM, for US\$199, while the **Marched Pro Plus** adds extra flash memory (for a total of 64 MB) and a rechargeable battery for a total of US\$119. The optional foot pedal will add an extra US\$69 to the bill. Educational discounts are available—see the Web site for details about qualifications.

Have you noticed that **HPN.com** (www.hpn.com) is looking a lot like **Amazon.com** (www.amazon.com)? These days? In fact, the two companies primed up recently and relaunched the HPN site as a co-branded site, for which Amazon.com will provide the inventory content, and customer service. HPN-specific information, such as store locations and job opportunities, is still available on the site. Amazon.com also continues to offer music and movies independently on its own site.

Spotlight



Big screens for semi-deep pockets

Last month's Tech Talk on 42-inch plasma screens had you asking: why to prefer that \$3,000-plus was more than you want to spend on a TV, like flat-screen. **Samsung** (www.samsung.com) has chosen Samsung's new 42-inch line of **42P** TVs, which start at about half the price of their plasma peers. The new displays are available in 40-, 46-, and 50-inch models for \$1,000, \$1,300, and \$1,500, respectively.

The multi-processor **Hybrid** technology is the first available in Samsung's **Toshiba** (www.toshiba.com) digital processing (DLP) technology. With DLP, the processor can split the video signal into a chip composed by 1.3 million bits, timing images, and the image is supplied through a processor line with the video processor (1.3 million bits) across. The resulting display is very clear, even close up, and has a 160-degree viewing angle.

The new screens—which include a wide range of connectivity options (allowing you to use them as TV or connected to a PC for presentation)—have a 16:9 aspect ratio.

Unlike plasma displays, they can be hung on a wall (the 50-inch screen is about 45 cm deep). Samsung's DLP models are considerably lighter than their plasma TVs (under 45 kg for the 50-inch model, and less than 30 kg for the 40-inch display).

Samsung plans to add 46- and 50-inch models this year, which will feature a thinner bezel. It says future 42P TVs will have a slimmer rim, at about 38 cm for the biggest models.

Continued on page 38



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Digital camera outlook

Something for everyone as 2003 shows maturity, stability

By David Tanaka

Digital camera development has reached a plateau. Today's \$300 digital camera will take pictures that are good enough for most people while \$2,500 will buy a high-end camera that will satisfy an advanced amateur or even a pro. While improvements still happen with each new model change, they are becoming incremental.

That hasn't always been the case. When we started reviewing digital cameras in *The Computer Paper* several years ago, each new generation of camera we looked at showed a big developmental jump both in megapixels and overall sophistication, essentially making whatever came before it obsolete. Today, categories have formed and manufacturers seem to have settled on developing all of them, not just racing towards ever more pixels.

This stabilization is good news for consumers for two reasons. First, it means you no longer have to buy at the top to get a good quality product. Second, your investment is protected against obsolescence longer. Sure, next year's model will have a couple of nifty



features that the camera you bought this year doesn't have, and prices will probably decline, but as an investment to record the special moments of your life, this year's model will be more than adequate for years to come.

Unifying platforms

One area where this stabilization is showing up is in the increasingly common practice of manufacturers building a couple of models from a single basic design. The models will look the same

and will mainly differ in sensor size. A case in point is Canon, with its S65 and S80 models, which are of identical proportions and nearly identical specifications, except that the S65 is a four-megapixel camera and the S80 a five-megapixel model.

Pentax has followed this pattern with the Optio450 (four-megapixel) and Optio458 (five-megapixel) models it introduced this spring, two prices in a pod except for sensor size. Noteworthy on these is the SX optical zoom, which is unusual—and welcome—for this class of camera.

Likewise, Nikon's new CoolPix 2100 (two megapixels) and 2300 (3.2 megapixels) fit in this category, as do some of Fujifilm's models such as the FinePix 2100 (two megapixels) and FinePix 3000 (three megapixels).

And while we can't say for sure because the model isn't available yet, the Olympus Stylus 400 (four megapixels) sure looks the same as the recently introduced Stylus 500 (five megapixels).

Common sense would say that manufacturers do this to reduce development and manufacturing costs. Presumably

Continued on page 14

Shopping for a digital camera

While any camera or consumer electronics retailer and you'll be confronted with a vast selection of cameras varying in size, shape, and specs. Given the current state of digital camera development, you can't assume that a pin-looking camera performs better than one that fits in your shirt pocket, or that more megapixels is better. Price is a general indicator of quality and performance, but within any given price band there are a few variables digital camera shoppers should keep in mind:

- **Pixel counts:** Two- to five-megapixel models are now common. Six-megapixel and greater cameras are so far restricted to DSLR models. More megapixels mean bigger—not necessarily better—pictures. Image processing systems and lenses also contribute to image quality.
- **Size, shape, weight:** Variations here include flat and square (Nikon's Digital X and Fujifilm F410Z), ultra compact

(Pentax OptioS, Olympus S-40, Canon Digital Elph), blocky or tube-like (Fujifilm S-2400 and S400, Nikon S700), elongated like a lounger (Canon S95, some Sony Cyber-shot), tall and upright (several Fujifilm models, like the F601), like a traditional 35 mm rangefinder (many models here, including Canon G8, Olympus S-5050) and approaching 35 mm single-lens reflex in size and shape (Nikon's Dimage 7N, Olympus E-20). Size, shape, and weight contribute to the camera's overall comfort; they will influence whether you'll continue to enjoy using it after the novelty of your new camera has worn thin. So spend time with a few different models to see if they feel right to you.

- **Optical zoom:** Most have a 3X zoom, but some models include 5X, 8X, or even 12X optical zoom lenses for strong telephoto performance. Be wary of digital zooms, which are enlargements of a

smaller part of the sensor, rather than optical magnifications.

- **Controls:** While even the most advanced digital camera has an Auto mode for point-and-shoot simplicity, models will differ in the usage of manual exposure controls offered. There is also a lot of variability in the location of controls, how they work, as well as the software navigation and menu systems. Try a few models to see if you are comfortable with the placement of controls and menu navigation.
- **Memory card type:** Do we really need five types of memory cards? Probably not, but that's what we're faced with. Types used today include CompactFlash (CF), SmartMedia (SM), Secure Digital/MultiMediaCard (SD/MMC), xD Picture Card (xD), and Memory Stick. Some cameras accept more than one type. Memory card type is not really a factor until you get into prosumer gear

or if you've already bought cards for another device, like a PDA or camcorder.

- **Batteries:** Don't forget, even as a proprietary design versus a standard format like AA, the advantages of proprietary designs include flexibility of shape and size, which allows camera makers more options for design, and sometimes longer battery life. The disadvantages are high cost and limited availability. If the battery dies, you can't just go to the corner store to pick up spares, and if you do decide to stock up, each proprietary battery will cost \$50 to \$100.
- **Extras:** Does the camera come with image-editing software or other utilities? Does it come with a memory card and if so, what capacity? Does it come with batteries, and/or a charger? Will it be compatible with your computer (the good news is most cameras support both Windows and Mac)?

—David Tanaka

Digital camera outlook

Continued from page 12

that is reflected in the prices we face as consumers—which are declining every year. But there's also the issue of ergonomics at play. There are only so many variations to a basic lens shape that, in a camera, fit right and work effectively. Once manufacturers discover one that works well, they may be reluctant to abandon it just for the sake of stylistic change. In the film camera world, some designs have endured for decades with only minor changes.

Despite the foregoing, however, the digital camera sector has a way to go to reduce model clutter. A shopper will still be confronted with a dizzying array of overlapping models, not only from separate manufacturers but also within a single manufacturer's offerings.

More for producers, at less cost

If you are interested in photography as a serious pursuit, you'll be hearing the call of the digital single-lens reflex (DSLR) camera. This is an interesting product category. The cameras themselves are, for the most part, based on 35-mm single-lens reflex designs and have the



advantages of such systems, not the least of which is interchangeable lenses.

Last year was something of a watershed for this class of camera. Canon, Fujifilm, and Nikon all introduced interchangeable DSLR models priced within a few hundred dollars of each other, all around \$3,500. While that's a big ticket, cameras of this type previously costing radically more, so this too represented a price/performance breakthrough and a competitive marketplace.

This year, prices are even better, thanks to Canon, which introduced a new model, the EOS 10D, just before the

annual Photo Marketing Association convention and trade show in March. It replaces the D60, and while Canon Canada's suggested retail price is \$3,200, it is now selling at retail for around \$2,500—about \$1,000 less than what the D60 was selling for at the beginning of the year. Nikon has reduced the price of its D100 and Fujifilm the price of its FinePix S2 Pro to stay in the game.

Other news for producers from the PMA show came from Pentax and Olympus. Pentax was displaying a new DSLR called the Pentax "ut D. This is scheduled to be on the market this sum-

mer and accepts Pentax's K series of 35-mm lenses. Pentax says it will be the smallest, lightest DSLR on the market—and priced competitively. The body weighs 512 g (18 oz.), compared to the Nikon D100 at 700 g (24.7 oz.), the Fujifilm FinePix S2 Pro at 760 g (27 oz.), and the Canon EOS 10D at 790 g (27.9 oz.).

Behind glass is a display case in the Olympus booth was the first product based on the Four Thirds specification introduced by Olympus and Kodak last summer: an Olympus E digital SLR, along with a family of interchangeable lenses.

The goal of the Four Thirds architecture is to start with a clean slate and create a new DSLR camera rather than basing it on a 35-mm film camera system as other manufacturers have done. Olympus says differences in the surface structure between film and electronic image sensors limit the ability of a lens designed for film to perform optimally with an electronic sensor. The Four Thirds system claims not to have that limitation, since it is designed specifically for digital. Olympus has scheduled an

Continued on page 21

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Phototainer stores images, tunes

By David Tenaka

The Phototainer is an attractively styled portable storage device combining a 20 GB hard drive, image viewer with 3.5-inch colour LCD display, and MP3 player, all controlled by a RISC processor and Linux operating system. About the size of a small paperback book (14.8x9.2x1.3 cm and 340 g), it has USB 2.0, TV out, and 1/8-inch stereo headphone connectors, a small built-in speaker, plus a CompactFlash II slot for offloading images from your digital camera (or other media cards with an adapter). The unit ships with a wireless remote control, AC adapter cables, PC software, and cloth carrying bag.



Phototainer 300P

Info: www.phototainer.com

Price: \$449, \$44 (note battery)

The 20 GB storage capacity USB 2.0 for fast data transfer to PC. Screen large than competing products. Versatile music viewer MP3 player built in. Rechargeable Li-ion battery. Linux OS offers potential for future development.

Can run battery life as MP3 player. Can view images and play music simultaneously.

Controls and interface

The main controls are under the flip-up colour screen. A circular four-way switch with an "enter" button in the middle dominates, and is surrounded by small-at-function buttons. Hit the On button and the unit boots up, just like a little computer, to a File Explorer screen. File Explorer is one of four built-in applications (the others are Music Player, Photo Viewer, and Setup). It includes basic file management functions such as select, copy, paste and delete. You can also open and read text files from File Explorer. Setup has eight sub-menus covering adjustments for image and music playback, power management, date and time, screen brightness, and more.

Navigation is accomplished by using the function buttons and four-way switch to work through menus or directories. This sequential approach can get tedious if you have to drill through several sub-menus or folders. But in the scheme of things, it's no better or worse than the control interface you might find on a digital camera.

A separate set of music player buttons (start, pause, stop, previous, volume, and hold) is on the side of the unit, plus a dedicated copy button sits near the CompactFlash slot for one-touch copying of data from a memory card to the Phototainer.

Photos and music

The Music Player and Photo Viewer are the primary applications. The Photo Viewer main screen is split into three panes showing the file listing (file name and size), plus a thumbnail image and EXIF data (image dimensions in pixels, date and time taken, f-stop, and shutter

speed) of the highlighted file. Optionally you can switch to thumbnail view, which fills the screen with thumbnail images. Photo Viewer displays JPEG (but not TIFF or raw) images.

Still images can be viewed full-screen, and you can also zoom in or out (images can be rotated in 90-degree increments, and to help you assess composition, you can overlay grid lines, toggling through four, nine or 16-segment grids. The slide show player has preset durations of one, three, five, seven, or 10 seconds, plus a manual control mode.

The MP3 player is a good basic performer, with separate bus and tactile controls. You can select sequential (in alphabetical order of file name) or randomized play. While the software won't create playlists, it plays them (M3U for mp3), so you can use something like WinAmp to create and save playlists when the Phototainer is tethered to your PC. During much of the test period, we used and enjoyed the player a lot.

Performance

The Phototainer showed images consistently in slideshow mode for approximately an hour and 40 minutes before the battery expired. In a separate test, the unit gave three hours of continuous audio playback. We consider the length of the image viewing time quite good.

Since in actual use, you'll probably review images for just a few minutes at a time, MP3 battery performance is only fair compared to the several hours that some hard drive-based MP3 players can deliver. Fortunately, the unit uses a reasonable Lithium-ion battery, and a second battery (costing approximately \$70) would be useful if you plan to use this device extensively away from a power plug.

To test image download speed, we loaded a Crucial 128 MB and (a fast card, roughly comparable to the SanDisk Ultra series) with 100 MB of image files and compared the time it took to copy the images to the Phototainer (one minute, 35 seconds) and a notebook hard drive using a PC Card adapter (one minute, 26 seconds).

Phototainer has a few minor shortcomings. The unit won't multi-task—so you can't listen to MP3 music while viewing pictures. While it does simultaneously play the audio and video portions of AVI movies, you must launch AVIs from File Explorer, as they don't show up in Photo Viewer.

Another oddity: some controls are not in Music Player, but in Setup. When connected to a computer through USB it becomes an external hard drive only—all built-in functions are locked out. You can recharge the battery using the USB connector, but that works best with the

Canucks enter CF market

Corion Micro Technology Inc. (www.coriontech.com) of Kennesaw, Ga., is entering the fray with its "assembled in Canada" line of CompactFlash memory cards. Corion offers the 328 Type I cards in 628 MB, 512 MB, 512 MB, and 1 GB capacities; the company claims that its 32K writing means the cards are 2.5 to 3.5 times faster than standard CF cards, with a read speed of 4.8 Mbps and a write speed of 4 Mbps. Pricing is competitive, for example the 256 MB unit has a suggested price of \$129.

—David Tenaka

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PhotoMaster shows images, too

Continued from page 28

unit turned off, otherwise the power drain seems to be greater than the charging rate.

Conclusions

At \$825, the PhotoMaster sits between 20 GB models of two competitors, the Deluxe (Pinn PhotoPro) (\$850) and Namsu Vista (\$758) according to prices we found at a couple of Canadian photo retailer Web sites in mid-April. The PhotoMaster includes USB 2.0, an MP3 player, a big display and versatile image viewing software. It has a lot going for it. The PhotoMaster software is in beta at present, with updates posted regularly. In fact, we had to remove parts of this review a couple of times, because limitations we encountered (e.g., no playlist support) were addressed by updated software. We think this bodes well for future enhancements. Like any hard drive-based device, it should be handled with care and bumping and jarring should be avoided, especially if the hard drive is spinning—as it would be during image playback. If we were in the market for a portable digital image storage unit, the PhotoMaster would definitely make our short list. That it is also an MP3 player is a sweet icing on the cake. ☐

Note: We thank a Canadian distributor, PhotoShop Imaging in Toronto, (416) 420-6770, for loaning us a PhotoMaster to review.

Digital camera outlook

Continued from page 14

official launch event for the end of June.

The Photo Thinker monitor, incidentally, derives from the 4:3 aspect ratio of the sensor, which is the same as a typical computer monitor, and also close to the familiar 16:9 inch dimensions (16:10:57 actually) of photographic prints.

Industry in transition

During a briefing at the PMA show, Info/Visual Research predicted that in 2004 unit sales of digital cameras would surpass film camera sales. In the U.S., for the first seven months of 2003, digital camera unit shipments were up 35 percent, while film camera shipments were down 25 percent, according to PMA. And we heard informal comments on the show floor of manufacturers' con-

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Shirt-pocket stowaways

By Sean Carverton

PowerShot 5400 Digital Elph

From Canon, www.canon.ca

Price \$399

When it comes to shirt-pocket digital cameras, Canon's Digital Elph line comes to mind. The PowerShot 5100 was the first truly compact two-megapixel digital camera, and Canon has been improving the line ever since.

The newest member of the family is the PowerShot 5400, and it's every bit as impressive as the 5100 was not only does it manage to cram a whole megapixel sensor into a body that's almost exactly the same size as the earlier models, it boasts a 1.5X optical zoom (earlier models were 1X) and keeps all of the bonus functionality that made more recent Digital Elph models so nice.

Earlier models in the line featured two or three modes: record, playback, and possibly movie mode. The PowerShot 5400 also includes a jog dial on the left side of the rear panel, allowing you to easily switch between automatic mode,

manual capture mode, movie capture, and panorama. The panorama mode is particularly nice, displaying a portion of the LCD screen, allowing you to line up your next shot properly; it's not a unique feature—other cameras have done this before—but it's a nice addition to a camera that's so compact. The one problem with this jog dial is that it's fairly easy to switch modes by mistake, especially if you have put the camera in your pocket.

As with previous versions of the



Digital Elph, the 5400 uses Type 1 CompactFlash (CF) for picture storage, and comes with a 32 MB card. There's a driver disk orbored, but many newer versions of Windows will automatically recognize the 5400 as a digital camera when you plug it into your computer's USB port. Though this doesn't give you access to the full CF card, it does make it fairly easy to move your images to the PC by dragging and dropping.

The Digital Elph wouldn't be a Digital Elph if it didn't have a rugged metallic casing, and this one does. You probably

won't want to keep the camera out in the sun, but it's certainly sturdy enough to handle the occasional drop or knocking about. It all adds up to a great addition to the Digital Elph lineup.

Stylus 100 Digital

From Olympus America Inc., www.olympus.com

Estimated price \$399

Olympus' digital camera line is fairly extensive, but until recently, a glowing gap has been the lack of a higher resolution compact model—Olympus cameras of three megapixels and up were always a touch bigger. Enter the Stylus Digital, which makes higher resolution with a true shirt-pocket form factor.

The Stylus Digital features two "all-weather" models: the Stylus 100 Digital and the Stylus 400 Digital, at 3.24 and 4.07 megapixels, respectively. Both feature the same size (9.9x5.6x3.55 cm) and weight (165 g), the only significant exterior difference between the two is the gold lens cover on the Stylus 400. We got our hands on the Stylus 100, so all com-

Continued on page 25

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| Compaq InstantShare RAM | 2 |
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Elm (TSC) Matched

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| C-200 | 2000 | 15,999 | 24 | 31 | 27 | 27 |
| C-200 | 2001 | 16,999 | 24 | 31 | 27 | 27 |
| C-200 | 2002 | 17,999 | 24 | 31 | 27 | 27 |
| C-200 | 2003 | 18,999 | 24 | 31 | 27 | 27 |
| C-200 | 2004 | 19,999 | 24 | 31 | 27 | 27 |
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| C-200 | 2007 | 22,999 | 24 | 31 | 27 | 27 |
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| C-200 | 2009 | 24,999 | 24 | 31 | 27 | 27 |
| C-200 | 2010 | 25,999 | 24 | 31 | 27 | 27 |
| C-200 | 2011 | 26,999 | 24 | 31 | 27 | 27 |
| C-200 | 2012 | 27,999 | 24 | 31 | 27 | 27 |
| C-200 | 2013 | 28,999 | 24 | 31 | 27 | 27 |
| C-200 | 2014 | 29,999 | 24 | 31 | 27 | 27 |
| C-200 | 2015 | 30,999 | 24 | 31 | 27 | 27 |
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| C-200 | 2046 | 61,999 | 24 | 31 | 27 | 27 |
| C-200 | 2047 | 62,999 | 24 | 31 | 27 | 27 |
| C-200 | 2048 | 63,999 | 24 | 31 | 27 | 27 |
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| C-200 | 2050 | 65,999 | 24 | 31 | 27 | 27 |
| C-200 | 2051 | 66,999 | 24 | 31 | 27 | 27 |
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| C-200 | 2053 | 68,999 | 24 | 31 | 27 | 27 |
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| 11004 | 2007-08-01 | 0.00 |
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Linksys WRT54GL v2 Wireless, 802.11g, 4-Port Router
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Breakthrough scanner with automatic feeder flawed

By Doug Alder

The Hewlett-Packard ScanJet 5500c is a pioneer product, as it is the first consumer-level scanner that can actually handle batches of photos. I have wanted a scanner like this for a few years, to deal with the two large boxes of family photos gathering dust in the closet. It's a great device, but also a **flawed** one.



HP ScanJet 5500c

From: Portland, Oregon, with laptop
Price: \$449 (with \$10 rebate coupon)

Capabilities

The Auto Photo Feeder on this unit uses

a cushion of air to prevent photos from being damaged as they pass through the scanner. The feeder handles up to 24 photos at a time in 3x5-inch and 4x6-inch formats, and generally works quite well. Best results seem to come by grouping photos of a common size and leaving them together with the plastic edge guide. The scanner can handle documents up to 8.5x11 inches using the manual loaded scan area, and slides and negatives using the included transparency adapter. It has a maximum scan resolution of 2,400 dpi (optical) and 48-bit color.

It is best to organize the batches of photos and group them as either landscape or portrait mode. This saves time later, because all the landscape photos need to be dropped on their side in software. Another timesaver is to feed portrait mode photos in top first, so the scanned images won't have to be flipped.

The scanner has five large buttons on the front, which allow users to scan directly to the Image Gallery software,

the Web, email, directly to the printer, or to the Memorex Disc software. An LCD screen on the front of the scanner allows you to set the number of copies to print, and a toggle lets you choose color or black and white.

Speed

My computer's USB port is the older 1.1 format, but I was able to plug in the scanner's USB 2.0 connector as the new standard is backward compatible. HP claims the ScanJet 5500c can scan a 4x6-inch photo at 280 dots per inch (dpi) in 25 seconds. In my tests—scanning in batches of photos—it seemed to average 30 seconds per photo, regardless of size. If you have USB 2.0, your results will probably be faster.

In addition to photo and imaging work, the scanner can be used for other tasks, such as document scanning. For example, scanning a letter-size document to Word—via the integrated True Optical Character Recognition software—took about 50 seconds.

Because it can process batches of up to 24 photos at a time, multi-tasking becomes important. Fortunately, the ScanJet 5500c software runs well as a background task. This allows you to do other things, such as organizing, cropping and editing photos, or even writing articles about scanners, as the scanner *grinds away* in the background importing images into your PC.

Major complaints

The single largest time waster with this scanner is that the underside of the lid is included in the photos, making it necessary to manually crop every single photo in some kind of image editing program. This significantly reduces the speed improvements offered by batch scanning.

Another issue is that older photographs, images on very stiff card stock, those with uneven edges or significant bending, and Polaroids all had trouble going through the feeder.

The bundled software is not as polished as I would like to see. The HP
Continued on page 27

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LIMITED STOCK ON SOME ITEMS

Breakthrough scanner
Continued from page 24

Photo and Imaging Gallery displays a number of standard software conventions. Cropping of an individual image, for example, involved selecting and pulling in the edges of each side of a photo to select the central part of the shot, then clicking the crop button to finish the task.



Dial I reaction: it is noisy? It is constantly blowing air in and around your photos, which makes a fine racket. Thank noisy photographers and you will have an idea of the desired level.

Conclusion

At \$579 after rebate, the HP ScanJet 5500c is a pretty but very innovative product. The included software needs more work. If you just have to get moving on your scanning project, buy it. If you're not in a hurry, wait for the second revision of this product. It is a great concept in need of some refinement.

The ScanJet 5500c is compatible with Windows 95, 2000, Me, and Xp, as well as Mac OS 9.1 and OS 10.1 and up. Minimum system requirements for a PC are a Pentium II or equivalent processor with 64 MB RAM, and 100 MB available disk space. For a Mac, it requires a minimum of a Power PC processor with 64 MB RAM and 150 MB available disk space. □

Douglass Heller was the original publisher and editor of *Mac Computer Files* for 10 years. He is president of HomeLine Internet Publishing Inc. in Vancouver, which specializes in FileMaker database application development. He can be reached at www.hline.net, 604-967 1061 or doug@hline.net.

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Triple (and quadruple) threats

TCP Lab tests inkjet-based multifunction printers

By Sean Carroll

When it comes to the inkjet printer market, the multifunction device is the fastest growing segment. That's not really surprising—more people are working from home regularly, whether it's a home-based business or they telecommute. In either case, the multifunction printer offers a very nice all-in-one bundle for those who need to do work from home. Why buy a printer, a scanner, and a copier when you can get all of them in a single (and much less expensive) piece of hardware?

For those who really want to throw themselves into things, many of these machines even come with built-in fax components, too.

The most popular, most basic configuration for a multifunction printer is the print/copy/scan trio. These three go together as well as it's actually baffling that it took as long as it did for manufacturers to combine them. The printer is usually a reasonably standard inkjet print assembly, but the body is enlarged to include a scanner. Those two components, when integrated, make it very easy to make copies as well, while it was always theoretically possible to do this with separate scanners and printers, the multifunction units make it a one-touch operation, and (usually) a PC-free operation as well.

Sheet-feed vs. flatbed

The scanning component takes one of two forms: with a sheet-feed scanner, rollers pull the sheet of paper through the machine; with a flatbed model, you lay your sheet on a piece of glass, and the scanning unit moves across the sheet. Most earlier multifunction printers used a sheet-feed scan component, but those scanners were only able to handle single pieces of paper, not a book opened to a certain page or media of non-standard size or texture.

Multifunction printers using a flatbed scanning component have gained a good percentage of the market, and no wonder: while they make for a larger overall design, they're much more



versatile, allowing you to scan whatever you can place against the glass. The big downside with flatbed models versus the sheet-feed style is that if you have multiple pages to scan—or fax—you have to do them one at a time, or spend more on a flatbed model that has an automatic document feeder.

To fax or not to fax?

Another evolution of the multifunction printer is the fusing capabilities. Many early multifunction models featured a built-in fax component, but that began to tail off when people realized they could use the scanning component in conjunction with their PC's built-in fax modem. Dropping the fax component from these machines also meant a price drop, which was a nice bonus.

That tale may be turning on its head, however, for that broadband is becoming the preferred method of getting across the Internet. As dial-up becomes less popular, modems may start

to disappear from the standard PC configuration. At that point, more multifunctions may start to feature fax components.

Even if your PC has a fax modem, there are a couple of good reasons to pay extra for a multifunction with built-in fax. It's easier to send a fax directly from a fax machine-style printer, and you can send and receive faxes even when the computer is off.

This month we looked at a few different types of multifunction printers. All of the models use inkjet technology, which means they're typically slower than laser-based models, but are also much less expensive and can copy and fax in color.

Compact

Though multifunction printers already save space on the desktop, a growing number of models are even more compact. Here are a few of these newer machines.

Brother MPC-4420c

From: Brother Industries Ltd., www.brother.com
Estimated price: \$300
Cartridge prices: 500 (Black) 3.9 (ps. C, M, Y)



Brother's MPC-4420c is an impressive little unit: standing only 16 cm high through the body (about 32 cm with the paper support fully up), the fact that it manages to squeeze built-in fax capabilities into a machine that already has print and copy capabilities is impressive.

The inkjet-based, multifunction uses an innovative four-cartridge ink system that features the cartridges right out in order to keep the profile of the device smaller; the cartridges slot in just under the front lip of the printer, and ink is fed to the separate printed module. This configuration has a second advantage: there are no electronic components on the cartridges, which lowers their cost.

The machine's compactness wouldn't mean much if it wasn't up to its many tasks. Thankfully, it's a pretty impressive machine in that department as well. Its print output at a touch shows that some of the larger machines, but it's still quite good in draft mode. Print quality is also excellent whether you're using the machine as a printer or a copier.

You can do one-touch copying if you prefer, but you can use the menu system to adjust the quality and scaling (from 25 to 400 percent in 1 percent increments). Scanning to the PC is a bit more involved, but pretty easy: selecting your options from the printer opens up the scan/optical character recognition (OCR) application on the PC, and saves it into the documents folder for that program. You'll definitely get better scanning accuracy by opening up the software first, however, and selecting

your options from there.

The built-in fax component bumps its price up, but for those who require PC-free faxing, it's a real plus. As with many other Brother fax machines, the MFC-4400 features a quick scan-to-memory feature, so you don't have to wait for the fax to go through at the other end before you can get your originals back. The machine will also fax in colour, using JPEG compression (the machine at the receiving end needs to have colour fax capabilities too, of course).

Adding to an already impressive package, this printer features slots for three types of digital camera media—Type II CompactFlash, MemoryStick, and SmartMedia—so you can print photos without having to turn on the PC.

HP's PSC 1210

From Hewlett-Packard Co. hp.ca
Suggested price: \$100
Cartridge prices: \$52 (black) \$52 (in-colour)



Putting it out for the honour of smallest all-in-one is HP's PSC 1210. At a glance, the Brother machine above looks smaller—the scanning section stands only 13 cm off the desk—but when you measure the paper feed assembly, it's about 12 cm taller than the HP model. The PSC 1210 is also shorter in the other dimensions, which means that—optical illusion aside—it's the most compact multifunction machine we've seen. True, it lacks a built-in fax component, but it's still a very powerful little unit.

It looks deceptively basic, but has plenty of functionality along the left of the flatbed scanning component and a row of buttons that include one-touch scanning or copying (in black or colour). The buttons offer most of the commands you need to scan or copy, but you have even more control by hooking it up to your PC, and making selections from the software. If you want to send a fax, you definitely need to have the PC powered up, because you can only send faxes via the PC's modem, so there is no

Continued on page 30

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Triple (and quadruple) threats

Continued from page 26
back-on-line (you have to scan documents into the PC and send them out using a separate fax program).

The print quality on this machine is excellent despite the compact size. The main complaint here, if any, is that the machine's copying abilities are fairly limited: you can make a maximum of nine copies per original, and you're not given a lot of control over the copy from the machine itself (just options are 100 percent or "fit to page"). If you only ever need to make basic copies, this machine will be fine, but for more complicated copy jobs you'll want to use the PC software.

Lexmark X1150

From Lexmark Inc. www.lexmark.com/canada
Estimated price: \$195
Cartridge price: \$45 (standard black) \$10 (monochrome black) \$30 (color) \$15 (monochrome color)
Lexmark's X1150 is another very compact multifunction printer. It also has the lowest price point of the systems reviewed that month. Of course, its low price means a few compromises have been made. The main one is that all of

its functionality, including copying, is host-based—which means it needs to be connected to a PC that is turned on.



That's a pretty serious drawback for some users, especially if the computer's busy doing other things—every time you make a copy, the software will engage and some of the computer's resources will be used.

That said, there are some really nice features to the X1150. First, in its compactness, if it wasn't for the paper support and the output tray, it would be one of the smallest machines of its type. Second, it communicates with the PC using USB 2.0 (which has a top data transfer rate of 480 Mbps versus standard USB at 12 Mbps)—probably a must with host-based copying. As well,

the software includes facing capabilities, which means host-based facing is more streamlined than other all-in-ones that require a separate program (an all-in-one with a fax component is still easier, but a bit much to expect at this price).

Though a touch slower than the competitors, the output quality for the X1150 is very good—technology from Lexmark's higher-end printers having dripped down to its lower-priced models—so you get great prints and high-quality copying. If most of your printing will be from the PC, this unit will be a good choice. Still, printer-based copying would have been a nice addition. As it stands, the X1150 offers very good value but more demanding users will want to look further up the product line.

Mid-range

The majority of multifunction printers fit in the category. These models are, for the most part, the traditional size for multifunctioners, and are priced mid-way between the compact and office-friendly ranges, with variations based on feature sets (like capability and digital camera media slot, for example).

Canon MultiPass F20

From Canon Canada, www.canon.ca
Estimated price: \$149
Cartridge price: \$1 (black) \$29 (color)



Canon's multifunction line has a few family members, and the MultiPass F20 is the entry-level model. While it's the only model without a fax component, it still has a lot of great features, including the ability to send and print directly from digital camera media of any type, as long as you have a PC Card adapter for your type of memory card (it ships with a Type I CompactFlash adapter).

It's pretty easy to do an index print, though selecting individual images is a bit tougher using the menu system. Both photo printing and copying produce

Continued on page 22



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Triple (and quaduple) threats

Continued from page 30

excellent results, as does printing from the PC.

There are a few issues with the printer's menu system, however. The first is mostly an unfortunate design choice: whenever the printer is shut off, it defaults to black and white mode when it's restarted, which means you have to change it back to colour before doing colour copies. (While this is probably based on the assumption that most documents will print in black, it would be nice if the menu option remembered settings at shutdown, so you wouldn't have to change them every time.)

Secondly, pressing the photo card button by mistake caused problems; the machine would not cancel this menu request until either the photo card was inserted or the printer turned off.

Once you get past these glitches, however, it's pretty smooth sailing. The software menu is straightforward, and the toolbar is easy to use. In the end, the Minolta F20 is a very good multifunction printer with a couple of control panel annoyances that keep it from being truly excellent.

Epson Stylus CX3200 / CX3200

From Epson America Inc., www.epson.com

Estimated price: \$279/\$249

Cartridge print: CX3200 540 (black) 540 (cyan)

Cartridge print: CX3200 520 (black) 519 (C, M, Y)



At the time of our testing, Epson had two multifunction printers in its lineup: The Stylus CX3200 is the more value-oriented of the two, even so, it's a fairly full-featured model, with one-touch copying (with a separate button for colour and for black and white copies), scanning, and high-quality printing. The Stylus CX3200 is the more business-oriented unit. Though it looks similar, it has a faster print engine, better resolution, and more Durable Ink in four separate ink tanks for maximum ink life expectancy. (Epson claims designs and documents printed with Durable Ink will last

compatible paper will resist fading for up to 80 years.)

Both printers feature an LCD menu system on the front panel that offers a fair amount of control over document output. Copying documents in PC-free, with a number of scaling options, mostly listed as scaling from one paper size to another. Print quality from both machines is exceptional, with 5,760 dots per inch (dpi), horizontally.

You'll definitely get a lot more out of these machines using the included software, which, happily, has no better model has a built-in fax component—integrates with your existing fax software. Whether you're planning to use them mostly for printing or copying, they are both pretty solid machines. For those who want longer lasting documents and don't want the hassle of throwing out a tri-colour cartridge when just one colour runs dry, the CX3200 is worth the extra investment.

Hewlett-Packard CX3200

From Hewlett-Packard Co., www.hp.com

Estimated price: \$600

Cartridge print: \$30 (black), \$20 (cyan), \$30 (magenta)



If you're considering an HP multifunction, and are not that concerned about ultra-compactness, add 1000 to the PSC 1210 and choose the 2210 model instead. It sports a larger footprint, a bigger price tag, and a bigger array of functionality.

One of the reasons it costs more than many other units this size is its digital photography features: shots for digital camera media (Type II CompactFlash, SmartMedia, SecureDigital, and MemorySticks) and an innovative use of the scanner component in conjunction with those cards. After inserting a card and pressing a few buttons, you can make a series of index prints, each of which has

Continued on page 36

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< DIGITAL PHOTOGRAPHY >

Inexpensive utilities for digital photography

By Gene Williams

The further you progress with digital photography, the more you need speedy tools to help you achieve the best results from your digital images. Some of these exist as plug-ins to Photoshop and others are standalone utilities. To keep the cost of tools from getting out of hand, it's worthwhile evaluating the best shareware and freeware offerings. Here's a collection of four of my most often used standalone utilities.

VueScan (Windows, Mac, Linux)



Whether you're scanning with a flatbed scanner, a dedicated film scanner, or both, the native product software often doesn't deliver the full capability of the scanner sensor. If you have a mugging feeling that your Minolta, Nikon, Epson, Canon, or other software isn't delivering all the goods, check out Ed Hamrick's VueScan site (www.hamrick.com). VueScan has a large following amongst those who take their scanning seriously.

Despite a somewhat primitive-looking interface, VueScan abounds with advanced controls and settings for adjusting image scans. It comes with a large number of film profiles to assist with colour balance and provides a custom juggling of both ICC and IT8 colour calibration. Depending on the capabilities of your scanner, it can scan in 24-, 48-, and 64-bit modes. VueScan includes a cloning feature similar to Digital ICE for sensors that have an IR (infrared) channel. I like VueScan for its ability to provide a single interface to

multiple scanners.

My favorite and most used feature of VueScan is batch scanning. When I'm scanning rolls of 35 mm film, I batch scan each strip of the roll, saving each VueScan raw file to disk, along with a small JPEG. When batch scanning is complete, I gather the JPEGs into a folder and use Photoshop 7's Contact Sheet feature to create a digital contact sheet. I then use VueScan to send the saved raw scans to fully process selected images that I will save as TIFFs. I burn the raw VueScan scan files to CD-R in case I want more of the images later. It saves me concerning.

VueScan is multi-platform shareware with a generic license. At US\$49.95 for the Standard edition and US\$79.95 for the Professional edition, the license allows you to use the software on up to four personal computers and provides unlimited free upgrades. There is a trial version you can download to compare with your existing scanner software.

IMatch (Windows only)



Once you start acquiring digital images from your camera and scanners, you soon have a disk full of images that are hard to find and organize. Early on, in the present it's a good idea to organize images into directories that make sense, and to use some kind of meaningful naming convention. Even so, finding images after they number in the thousands can be a challenge. IMatch (www.muhimbi.com) is the rescue!

An easy-to-use image-management system, IMatch allows you to search, sort, and publish your digital image collection by creating a database of thumbnail images with descriptions. It

Continued on page 46

Inexpensive utilities

Continued from page 44

can read EXIF and IPTC metadata directly from the images and it offers one of the most versatile categorizing systems of any product on the market: It also offers batch conversion, label support, watermarking, and support for removable media, such as CDs and DVDs.

Friend at US\$49.95, iMatch offers viewing capabilities for all standard file formats and for most digital camera raw formats, including Canon, Nikon, Minolta, FujiFilm, Olympus and Kodak. For the adventurous, it provides a full scripting capability.

Next Image (Windows only)

While I love the quality of the images I get with my Canon G2 digital camera at ISO 540, when I raise the ISO to 300 or 400 for dimly lit scenes, the sensor generates considerable noise (the digital rough equivalent of grain in film, but not as attractive). When I need to shoot in this light without flash and still get good looking results, I turn to Next Image (www.nextimage.com), a desktop sharpening utility.

Next Image provides a number of useful adjustments for calculating noise and algorithmically smoothing it out without losing too much image detail. While no product can work magic, this one comes close. It also does a fine job of reducing grain on scans from traditional high-speed films such as Tri-X. The versatility and quality come at the price of speed. Next Image is very slow when used on large files that it can be used in batch mode and be left chugging in the background overnight.

The Home edition of Next Image costs US\$29.99 and the Professional edition costs US\$59.50. The Home edition only works on 8-bit images, while the

Professional edition works with 16-bit images. The Pro version also allows an unlimited number of files in a batch process. The Home version is limited to 10.

InstantView (Windows only)

Last but not least in this roundup is one of my favorite programs, InstantView

(www.instantview.com). Day in, day out, this is the utility I use the most, and it's free.

InstantView is an image viewer. But to call it that is to call Tom Hartono just a despicable shop. It is, but don't forget the bugs and the chili dog! Lean and snappy, InstantView excels at displaying images and, with free plug-ins, can also display all EXIF and IPTC metadata. Furthermore, it does batch conversions, colour adjustments, cropping, sharpening, thresholding, levels (PSC) retouching, zooming, and even scans captures and wallpapers. It even performs simple automated slide shows.

I always use InstantView to batch convert large images to thumbnails. And I appreciate its ability to use an image to the external image editor of my choice—with a single click I can launch what I'm viewing into Photoshop or Picture Window Pro. I strongly recommend this versatile, free product as the first digital image utility you install for Windows. ☐

Greg Williams is a Toronto-based writer and photographer. He can be reached at greg@bell.ca.

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Formatting PowerPoint slides

Master a style



OFFICE SLIDE TRAINING

The basis of any slide presentation is text, in headings as well as content. So, working with text is a key skill for your PowerPoint toolset. This month we look at ways to simplify formatting text on slides, including using the slide master, to ensure all your slides have a common look.

Understanding masters

PowerPoint has a number of masters, each of which helps create a look for part of your presentation. Think of masters as the equivalent to the styles feature in Word or Publisher.

PowerPoint has a number of masters that appear on basic slides with a layout that includes placeholders for common slide formats, a layout with a title, a text placeholder, and some sample text, for example. You select various elements in the slide master and format them the way you want. If, for example, you want all of the slide titles to be in Verdana, yellow, 24-point, bold type, you would format the title this way in the slide master. Then, the title on all new slides will automatically have that format. There is also a title master, for preparing slides that, for example, can be used to introduce new sections in a multi-topic presentation.

PowerPoint 2002 includes a notes master template, for items you want to refer to during your presentation, and a handout master for items you want your audience to take with them.

By creating multiple master slides you can have two or more different looks in your presentation. For example: a blue background for new topics and a red background for another. Multiple masters offer this level of control.

To see the masters for any given presentation, choose View, then Master, and you'll see menu options for Slide Master, Notes Master, Handout Master, and Title Master (the latter may not be included in all presentations, but you can easily create one). To see the slide master, click its menu option. The screen will clear (your slides will be hidden) and a single slide with a heading and text placeholder will be displayed.

Now you can format elements on the

slide master in the way you want text on your slides to appear. Click the title and format; then click the styles in the text placeholder to format each level of text. To do this, select a line of text, then right-click, and choose Bullets and Numbering, for example, to alter the bullet format for that level. To add a title master to a presentation that doesn't have one, right-click on the thumbnail for the slide master and choose New Slide Master. You can format it using the same tools as you used for the slide master.



The image shows two sets of slide/masters with the same templates but different colors.

If you'd prefer to use a preset design for your slideshow, choose View and select Task Pane to display the task pane on the right of the screen. From the task pane dropdown list, choose Slide Shows, Design Templates, and pick a template to use for your presentation. Some of these templates include a title master, which will appear as a second thumbnail image. When you've selected a design template, click the Color Schemes option in the task pane to alter the colors of the master, if desired.

Once you've chosen from the preset options, you can fine-tune the result by altering the formatting of individual elements on the slide master and slide masters. Switch between the two by clicking the thumbnail image for either from those displayed on the left of the screen.

You can add a second master slide by right-clicking one of the thumbnail images on the left of the screen and choosing New Slide Master from the options displayed. This allows you to make a second master. However, it's difficult to apply the same design template to a second slide master without duplicating the first set (instead of simply adding a second set). To duplicate a slide master (or a slide master/title master pair),

choose Insert, then Duplicate Slide Master. Now you can change elements, like the background color, on the second set, allowing you to use a single design but different colors.

When you've set up the slide and title masters, right-click one of them and choose Preserve Master—this prevents you from losing your slide masters if you remove the slides based on it. Then choose Close Master View from the Slide Master toolbar to return to the document and continue with your presentation.

Applying a master

With multiple slide masters, you can choose between them for creating any given slide. By default, the first slide master you create is applied to all slides, but you can change this, applying a master to some or all slides. To apply a master to all slides, from the task pane dropdown list, choose Slide Design, Design Templates, and your slide masters will appear in the top of the task pane. Click one of these masters and it will be applied to all the slides in your presentation.

To apply it to selected slides, hold Control as you click on one of the slides you want to apply it to; then click on a slide master template. Provided more than one slide is selected, the template will be applied to only those specified. If you need to apply a template to only one slide, click it and, from the dropdown list to the immediate right of the slide master template in the task pane, choose Apply to Selected Slides.

When you want title slides to look different than other slides, use a title master to format them. Apply the title master to a slide by clicking on the slide, choosing Format, then Slide Layout. From the slide layout options in the task pane, click the Title Slide Layout (it has two gray lines across it in thumbnail view). The layout has a single line for the slide show heading (or the heading for this section of the show), with space for another line or two of explanation. If you're adding a new title slide, click Insert, New Slide, then click the Title Slide layout.

Adding elements to a master

A slide master can incorporate a number of features, including your company logo or images in each slide that illustrate the topics covered in your presentation. To do this, open the slide master for editing

(View, Master, Slide Master), then select Insert, Picture, and locate your logo in your clipart collection or from your disk.

Click in the image you want; then insert it into the slide. Now it sits on top of the slide master and mustn't be, if necessary, if you're using a colored background for your slide and the image has its own background, you can move it by changing its background setting to transparent. To do this, from the Picture toolbar (View, Toolbars, Picture), click the Set Transparent Color tool and click on the background of the image. Provided a single color has been used for the image background color, it will now be hidden from view and you will see the image layer better with the slide's background.

Before you finish in the slide master, ensure that the text you placed on your slide won't block out the image. To do this you may need to adjust the size of the text placeholder to ensure its border doesn't overlap the image border.

You may choose to use a larger version of the image, another image, or the same image in a different position on the title slide. To do this, select the title master (or create one), then repeat the process of adding an image to a slide.

PowerPoint has some additional features for fine-tuning the text format and look of your slide masters. One of these is the line spacing option, which lets you adjust the spacing between lines in a bullet list. To do this, select the bulleted item on a slide, choose Format, then Line Spacing. From this dialogue, set the spacing you want to use between lines of text in a single bullet line, or set a spacing value to add space before or after each complete bullet. For example, to have single spacing between multiple lines of text in a single bullet point, but 1.5 lines of spacing between successive paragraphs formatted with this type of bullet, set the After value to 0.5 lines.

In place of regular text bullets, you can use graphical bullets. These are small pictures that act as bullets to mark the different text points you make on your slides. To change the bullet style, on the master slide, select the text for that bullet point and choose Format, Bullets and Numbering, click the Bulleted list, and select the Picture button. When the Picture Bullet Dialogue appears, choose an image for your bullet. If you have an

Continued on page 50



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256MB DDR RAM
Black 1.44MB Floppy Drive
Black 52x CD-ROM Drive
80GB 7200rpm IDE Hard Drive
2U Rackmount Case w/500W

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1.800h \$1210
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Code 2U1

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2 X 1GB Pro 1GB Ethernet
500MB ECC DDR RAM
1.44MB Floppy Drive
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52x CD-ROM Drive
17" Tower Case w/600W

1.800h \$1500
2.400h \$1570

Code T1

Nordel 4U Entry P4



Intel 845PMT Server Motherboard
Onboard Video / IDE RAID
2 X 1GB Pro 1GB Ethernet
500MB ECC DDR RAM
Black 1.44MB Floppy Drive
Black 52x CD-ROM Drive
2X 80GB 7200rpm IDE HDD
4U Rackmount Case w/600W

1.800h \$1630
2.400h \$1700

Code 4U1

Nordel 4U ATA Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
Black 1.44 & CD-ROM Drive
Onboard AT Video
Onboard Dual GB Ethernet
Onboard IDE RAID controller
2 X 80GB 7200rpm IDE HDD
4U rackmount server chassis
480 Watt power supply

2x Xeon
2.000h \$3390
2.400h \$3530
2.600h \$3665
2.800h \$4461
3.000h \$5555

Code 4U2

Nordel 1U ATA Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
1.44 & CD-ROM Combo drive
Onboard AT Video
Onboard Dual GB Ethernet
Onboard IDE RAID controller
2 X 80GB 7200rpm IDE HDD
1U rackmount server chassis
350 Watt power supply

2x Xeon
2.000h \$4190
2.400h \$4320
2.600h \$4455
2.800h \$5255
3.000h \$5320

Code 1U2

Nordel 2U SCSI RAID Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
1.44 & CD-ROM Combo drive
Hot Swap
Onboard Dual GB Ethernet
Adaptec 2916B SCSI RAID
2 X 80GB 10K SCSI drives
1U rackmount server chassis
480 Watt power supply

2x Xeon
2.000h \$5370
2.400h \$5500
2.600h \$5635
2.800h \$6411
3.000h \$7490

Code 2U2

Nordel Tower ATA Xeon



Intel w/ 7447v2 Server Board
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1GB registered ECC DDR
1.44 & CD-ROM Drive
Onboard AT Video
Onboard Dual LAN 1x GB
2 X 80GB 8000 7200rpm RAID
2 X 80GB 10K SCSI drives
450 Watt power supply

2x Xeon
2.000h \$3375
2.400h \$3515
2.600h \$3650
2.800h \$4455
3.000h \$5550

Code T2

Nordel 4U SCSI Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
Black 1.44 & CD-ROM Drive
Onboard AT Video
Onboard Dual GB Ethernet
Onboard dual channel SCSI
2 X 80GB 10K SCSI drives
4U rackmount server chassis
480 Watt power supply

2x Xeon
2.000h \$3390
2.400h \$4045
2.600h \$4485
2.800h \$4985
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Code 4U3

Nordel 1U SCSI Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
1.44 & CD-ROM Combo drive
Onboard AT Video
Onboard Dual GB Ethernet
Onboard dual channel SCSI
2 X 80GB 10K SCSI drives
1U rackmount server chassis
350 Watt power supply

2x Xeon
2.000h \$4755
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2.600h \$5020
2.800h \$5795
3.000h \$6875

Code 1U3

Nordel 2U SCSI Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
1.44 & CD-ROM Combo drive
Onboard AT Video
Onboard Dual GB Ethernet
Onboard dual channel SCSI
2 X 80GB 10K SCSI drives
1U rackmount server chassis
480 Watt power supply

2x Xeon
2.000h \$5520
2.400h \$5640
2.600h \$5785
2.800h \$6555
3.000h \$7630

Code 2U3

Nordel Tower SCSI Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
1.44 & CD-ROM Drive
Onboard AT Video
Onboard Dual LAN 1x GB
Onboard dual channel SCSI
2 X 80GB 10K SCSI drives
Server Chassis
480 Watt power supply

2x Xeon
2.000h \$3690
2.400h \$3815
2.600h \$3955
2.800h \$4755
3.000h \$5855

Code T3

Nordel 4U Dual Xeon



Intel w/ 7447v2 Server Board
2 X Intel Xeon processors
1GB registered ECC DDR
Black 1.44 & CD-ROM Drive
Onboard AT Video
Onboard Dual LAN 1x GB
Onboard SATA RAID
2334AA 8000 7200rpm RAID
4U rackmount server chassis
480 Watt power supply

2x Xeon
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This Month FREE SHIPPING!

Triple (and quadruple) threats

Continued from page 35
one-touch operation, but the LCD menu steps you through it).

This model also has a built-in fax receiver, allowing you to send and receive faxes even if it's not connected to a PC. The modern transfer data at 33.6 Kbps, so you can send colour faxes a lot more quickly to compatible 33.6 Kbps machines. About the only downside here is the cost at \$699; it's the most expensive machine in the roundup.

HP OfficeJet 6110

From Hewlett-Packard Company www.hp.com
Estimated price: \$550
Cartridge price: \$30 (black), \$40 (in-colour), \$48 (photo)



Moving up the HP multifunction line to something that will satisfy a busier, more demanding group of employees, we have the OfficeJet 6110. It definitely has more features than the other HP machines on this roundup, including a 35-page sheet feeder and full onboard fax component.

The control panel and menu system has also been greatly enhanced for the 6110. It starts with the included template label, indicating the various button commands, which comes in separate French and English versions—just flip on the version you prefer. The software menu system is also quite powerful, giving you great control over PC-free print output,

including command-line transparency and scan-on-transfer printing. Not all of the options are one-touch, but the menu makes it pretty easy to navigate through the panel buttons.

The print quality is, as expected, top-notch. And though it's fairly slow at highest-quality mode, it can certainly crank sheets out quickly in draft mode. (For better photograph printing, you can replace the black ink with an optional photo cartridge.) The 6110 has a built-in 33.6 Kbps modem for speedy transfer of colour faxes (provided there's a compatible machine on the other end, of course).

Lexmark X6100 / X6700

From Lexmark Inc. www.lexmark.com/canada
Estimated price: \$299 / \$399
Cartridge price: \$15 (black), \$30 (colour), \$34 (high yield colour)



At the high end of Lexmark's all-in-one printer line, the X6100 and X6700 both offer a lot of functionality at very competitive price points. Both models feature speedy printing, built-in 33.6 Kbps fax modems, USB 2.0 connectivity, and an excellent menu system on the front control panel. The main difference between the two models is the X6700's 50-page automatic sheet feeder.

Setup of both models is quick and easy. Hit the lid, unlock the screens, insert the cartridges, then let the LCD

menu system step you through various configurations after you power the lid.

The menu system on the printers is very powerful: there are three "mode" buttons for one-touch switching between copying, scanning, and faxing. Once you've selected a mode, you can copy, scan, or fax in colour or monochrome with one more touch of a button. The options menu gives you a lot of control over PC-free output, including the ability to print to transparencies and multi-up printing (allowing you to fit up to 16 pages onto one physical sheet). As with the X5150, the X6100 series allows you to scan directly into a selected application from the printer's LCD panel, instead of forcing you to do so from the software control panel on your PC.



The quality of the prints is excellent. As with the other printers at this level, the best quality mode takes a while when it comes to printing photographs, but in draft mode you'll achieve much faster speeds.

While both machines are excellent, the auto-document feeder on the X6700 will make it more attractive to those who need a lot of faxes or regularly copy multi-page documents. While it does add \$100 to the cost of the machine, it still comes in at a more attractive price point than many of the other printers with document feeders onboard. ☐

WHAT'S NEW

Continued from page 36...

Listening to portable music in an urban environment, with a lot of ambient noise, usually requires volume levels that can have dangerous long-term effects on hearing. One solution is to buy "shush" it: everyone within earshot. Or if that doesn't work, you might want to consider earphones that block out some of the ambient noise. **Etyimotic Research** (www.etymotic.com) recently released a set of earphones that seal into the ear and block out 15 to 20 decibels of external noise, according to the company.



The **ER-5 Isolator EarPlanes** come with a carrying case, a 3.5-mm stereo plug, and replacements for the ear tips and filters. An adapter is available to make the earphones work with the double plug system found on many airplanes. At \$199, they're definitely more expensive than the shushing option, but the latter has been known to backfire, as people sometimes get angry and start to yell. ☐

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- Awardtek.com, May 8th, 2003



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Beyond Expectations

Macs can no longer just talk amongst themselves

By Eruru Townsend

A few weeks ago, someone sent me an email about this series, telling me to talk for a bit of criticism. Namely, that so far I've been fairly glib about moving files between PCs and Macs. It's all very well for me to say you can transfer your email settings from Windows to Mac OS by simply copying the files and following some steps, she said, but how do the files get there?

I admit I've been coy in this area, and kind of hoping no one would notice until I got around to this installment. (Oh, I was so close!)

If you visit Apple's Web site and check the Switch section (www.apple.com/switch/), you'll see that it involves burning a CD under Windows with your files, and then reading it on your Mac. If your files aren't too large, I'd even suggest copying them to a portable hard drive or USB keyboard drive and transferring them that way—it's fairly quick and painless.

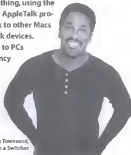
Of course, these are only temporary measures. If you plan to do more than copy the occasional file, you'll want to make use of a network.

In the past, Apple pretty much did its own thing, using the proprietary AppleTalk protocol to talk to other Macs and network devices. Connection to PCs required fancy footwork (which I'm glad I never experienced). If you open the Network window in the OS X System Preferences, you'll see that AppleTalk is still there, on a tab between TCP/IP and AirPort. Clearly, things have changed. (AirPort, by the way, is Apple's name for the 802.11b, or Wi-Fi, wireless, protocol; AirPort Extreme refers to 802.11g.)

All Macs come with built-in RJ-45 Ethernet ports, so physically connecting to an existing network is a simple matter of getting a cable and plugging it into your Ethernet hub. For my tests, I was connecting to a single computer without a hub, so I used an Ethernet crossover cable and plugged it into my PC's Ethernet port.

As you can imagine, setting up a wireless connection is fairly easy if you have an AirPort card installed. The first step is to make sure everything is ready to go. Go to System Preferences, choose

In the past, Apple pretty much did its own thing, using the proprietary AppleTalk protocol to talk to other Macs and network devices. Connection to PCs required fancy footwork.



My name is Eruru Townsend, and I'm a Switcher

Network, and click the TCP/IP tab; make sure the Configure option is set according to your network configuration. (If you're not sure, you should probably set it to Using DHCP.)

Next, click the AirPort tab. On top is the AirPort card's MAC address, in case you need it (Apple calls it the AirPort ID). Then you're given three choices: to join the network with the best signal, to join the most recently used available network, and to join a specific network. Underneath that is an option I consider essential: to show the AirPort status in the menu bar.

The easiest way to join a wireless network is to choose one of the first two options and let the Mac find your network; if it needs a WEP key as a password, you'll be prompted to enter it. Curiously, however, automatic detection didn't work for me the first time. My wireless network has been up and running for quite some time, and I've always been able to see it from any point in or near the house. Yet, when I set the clock down right next to my main computer's 802.11b adapter, it insisted there was no network to be found.

There are two possible ways to manually enter the information necessary to

connect to a wireless network. One is through the System Preferences. On the same AirPort tab I mentioned before, you can choose the third option, to join a specific network by entering its name and a password. The other way is through the AirPort status icon in the menu bar (see, I told you it was useful): click an Open Internet Connect from the menu, and you'll get an AirPort dialogue that shows you if the AirPort card is on or off, what its signal strength is, and whether you're connecting to an ad-hoc (computer-to-computer) network or through a base station. Once you've verified these settings, you can enter the network name and password by clicking the Network box.

Whether you go through System Preferences or the AirPort icon, entering the name and password should be the easy part. Unfortunately, that didn't work out for me either. Although the book found my network, I couldn't actually connect to it. I quit over a week reentering the WEP key, combing through Apple's knowledge base, querying the occasional Mac guru and spending time on the phone with Apple.

I was just short of pulling all my hair out and/or throwing the book out the

window when I happened upon an article about wireless networking with a Mac—and there was the solution no one else had been able to give me. Simply: if you are connecting to a Windows-based 802.11b network, you must prefix 40 or 64-bit WEP keys with a dollar sign (\$), otherwise, prefix the key with a number sign (#).

And just like that, I was connected.

Share and share alike

Wired or wireless, the process of sharing files is the same.

Before you can access folders on your PC from your Mac, you have to share them on the network, right-click on a folder, choose Sharing and Security (or just Sharing, depending on your version of Windows), and go through the options. Then it's a simple matter to establish the network connection.

1. Go to the Go menu in the Finder and choose Connect to Server.
2. Select the PC's computer name, then click Connect. (You may see the workgroup name, rather than the computer name; click the workgroup name to make the computer name appear.)
3. Enter your username and password if necessary.
4. A dialogue box will appear asking about an SMB Mount. Select the folder you want access to, then click OK.
5. An icon will appear on your desktop with the name of the shared folder.
6. Repeat these steps for every folder or printer you want access to.

(If you're being observant, you'll notice that the fourth step isn't the first time you've seen the initial SMB, when you clicked on the computer name in the Connect to Server dialogue, at the bottom it read something like "smb://domain.name.com." SMB is a Unix resource-sharing protocol, and Samba is one of the most popular programs that uses SMB. I only mention this because you'll be seeing the name Samba again soon.)

If you want to do the other way and access Mac folders from a PC on the network, verify that you have an account that can accept a Windows connection. Go to System Preferences, choose Accounts, and make sure that the

(Continued on page 62)

Smaller iPods get capacity boost, iTunes upgraded



Justin Sorenson
APPLE NEWS

This month, Apple has released four versions of its eBook consumer laptop and eBook consumer desktop lines. The updates mean both lines get faster processors and lower prices, but no major changes were made. But the interesting news, which we touched on in Jan's What's New, was in Apple's audio offerings, so let's hear about those first.

Facelift for iPod, iTunes 4.0 released

Apple ended months of speculation in late April by releasing new iPods and launching an online music service called the iTunes Music Store. As we reported last month, the download service is only available to customers in the U.S. at this time, but the new iPods and iTunes 4.0 software are available everywhere.

The new iPods—in 10, 20, and 30 GB capacities—are completely different

from the original models: much thinner and lighter and sporting a new interface. There are no mechanical buttons on the front surface; the controls are now all touch sensitive. The four buttons that surrounded the scroll wheel on the old iPods are now positioned under the screen, and glow red when the screen backlight is on. When placed next to a first generation iPod, the new models appear to be about half the size, but are in reality only about one-third smaller (the 30 GB version is thicker and heavier than the other two).

In the past Apple listed the number of songs based on MP3 compression with a bit rate of 160 Kbps and an average song length of four minutes. This meant the 5 GB model could hold about 1,000 songs, the 10 GB about 2,000 songs, and the 30 GB iPod up to 4,000 songs. Now that iTunes supports the AAC format, Apple estimates the song capacity of the iPods based on AAC encoding with a bit rate of 128 Kbps. Music encoded in this format, even at the lower bit rate, is claimed to sound better than 160 Kbps MP3s,

almost as good as 192 Kbps MP3s, and more songs will fit on the same space. Based on this format, Apple estimates that the 30 GB iPod can hold about 7,500 songs, the 15 GB model 3,750 songs, and 7,500 songs for the 30 GB iPod.



You still get a carrying case and remote control with the two larger capacity iPods, as well as a dock that can charge the battery, sync with your computer or FireWire or USB 2.0, and features a line out for running to a stereo.

The dock will be available separately for the 10 GB model.

Prices drop slightly, although it's mostly due to the rising Canadian dollar. The \$479 5 GB iPod was replaced by the 10 GB model at \$495, the \$629 10 GB iPod was replaced by the 15 GB model at \$699, and the \$799 20 GB iPod was replaced by the 30 GB model for \$749. Overall, the new iPods give you 50 to 100 percent more storage for \$20 to \$50 less.

In addition to the new iPod OS 2.0, Apple has introduced a new higher resolution screen that allowed it to change the interface. The new iPod has a customizable menu system, allowing users to move frequently used items to the main menu. Other changes to the new OS include the ability to create play lists on the iPod, as well as the ability to rate songs on the iPod and sync that info back into your iTunes on your computer.

There are several new games (including Solitaire), and in addition to iCal and Address Book syncing, you can now

Continued on page 58

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Smaller iPods get capacity boost

Continued from page 35

transfer test notes and read them on the iPod screen. The new iPods are available now, though availability of the 30 GB model will be constrained for the first month due to supply issues.

There are no longer Mac or Windows versions of the iPod, which is good for retailers who had trouble balancing stock between the two. Every iPod box now includes all the necessary cables to use the device with FireWire on a Mac or PC, as well as iTunes 4 and Music Match software. The USB 2.0 cable for iPod will be available later in the summer and will allow Windows users without FireWire to connect the iPod to their PC.

The second part of Apple's announcement revolves around iTunes 4, which is a free download for all OS 10.2 users. As noted above, the upgrade includes support for the AAC, which was developed in part by Dolby.

The upgrade also includes the iTunes Music Store, which allows users to buy music online from Apple and download it directly into their iTunes library. The

music is compressed in the AAC format, and for each song in the store there is a 30-second preview so you can listen before buying. Once you purchase the song, you are given certain digital rights: you can play the song on up to three Macs, and you burn it to CD as many times as you like. You can also store the song on as many iPods as you like.

The music you purchase from Apple includes cover art from the album, which can optionally be displayed in iTunes 4 while the track is playing. However, it is currently only available to U.S. customers, so we haven't been able to test it out. Canadians can connect to the store in iTunes 4 and listen to the previews, but a U.S. credit card is required to make a purchase. The cost is very reasonable at US\$0.99 per track, or US\$9.99 for a full album. We'd like to see something like \$1.25 per track in Canada and \$12.99 for full albums.

The iTunes Music Store will be available to (U.S.) Windows users sometime before Christmas, when Apple releases a free version of iTunes for that platform. (Hopefully, the service will be available to Canadians by then.) This is a major

mental step for Apple, as it's the first time it has ported one of its apps to Windows.

Even without the Music Store, iTunes 4 is a great upgrade, and you can, of course, use the built-in AAC encoder to create your own AAC files. You can also add in your own album art to songs in your library.

Mac update

The new eMac line includes three models, up from two, and the speeds now range from 800 MHz to 3 GHz. Prices have dropped by several hundred dollars on each model. You can now buy an eMac for the price of a G3 Mac before it was discontinued several months back. At \$1,199, the base eMac now includes an 800 MHz G4 processor, 128 MB RAM, 40 GB hard drive, and a CD-ROM drive. It also has all the standard interfaces: three USB, two FireWire, and an Ethernet port. The new eMac now supports AirPort Extreme, which operates at 54 Mbps.

The new line maintains the design of earlier eMacs, and since this is a speed

bump and not a new model, they should still be able to boot into Mac OS 9.



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| 800 MHz | 128 MB | 40 GB | CD-ROM | \$1,199 |
| 1.6 GHz | 256 MB | 80 GB | CD-ROM/DVD-ROM | \$1,499 |
| 3.0 GHz | 256 MB | 80 GB | CD-ROM/DVD-ROM | \$1,999 |

The two higher-end models are both powered by 1 GHz G4 processors and buyers have a choice of optical drive. The \$1,499 model has 128 MB RAM, a 60 GB hard drive, and a combo drive (CD-RW/DVD-ROM). The \$1,999 eMac bumps the RAM up to 256 MB, has an 80 GB hard drive, and a SuperDrive.

Continued on page 62

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Aunt Abigail creates order from photo chaos

By Marvin D. Silbert

A few days ago someone sent me a set of digital photos of their new baby. Last week it was a work-related set showing a number of failed heat-exchanger tubes. I receive these sorts of collections all the time, and they rarely come with a memo that indicates the subject matter. This can make finding them and organizing them for posting a real pain. So, they send, for all practical purposes, to be looked at once then filed away and often forgotten and lost. This is not a satisfactory way to send digital pictures.

Aunt Abigail's Photo Album

From: Aunt Abigail Software, www.auntabigail.com
Price: \$45.99

Wouldn't it be better to organize pictures in a photo-album page with captions before sending them? I just found an absolutely simple program for doing just that. It's called Aunt Abigail's Photo Album. Don't laugh at the name. Auntie does these jobs much more efficiently than do many of those high-priced graphics programs.

Auntie can be downloaded from her Web site, which may give you the impression that this is a program to assemble your holiday or family photos. It is, but a JPEG or whatever in a JPEG or whatever is matter how it was made. I don't have a digital camera, but I do have loads of JPEGs and other graphics files, and thousands of Kodachrome slides.

There are two versions of Auntie. Choose the right one for your version of Windows. The program is essentially self-installing and you get 60 days to try before you buy. Sending is \$45.99 along with the install code and from your computer will get you the code to unlock the time limitation. Being machine-specific, you can only operate on one computer and, unfortunately, that also means you must get another code number if you reformat your hard drive, as I did a few weeks ago. I started with version 1.1 and after asking a few questions, suddenly became a beta tester for the present version 1.2.

It only took me about 30 minutes of playing around with Auntie to become proficient. The interface has two win-



dows: the one on the right shows the page you are producing and the one on the left is used for editing. A number of tabs on the editing window allow you to select particular tasks such as cropping, rotation, conversion to black and white, placing a mark around the image, adding a caption, and adjusting the brightness, contrast, or sharpness.

You start by selecting an image and then manipulating it on the page. An individual album page may contain files from a single source or from multiple sources into which many sources. Auntie does not alter your images. She allows you to edit them, then stores all the editing and placement information about your album pages in a database file. As that database references that (and does not alter) the individual graphics files it is very important that those image files never move once they have been incorporated. To help you find those files in the future, you can set the screen to display the filenames. Although Auntie stores a backup up copy, it would be a good idea to keep an updated copy of the AUPhotoAlbum.mdb file (465 KB) in a separate location.

My first test was to see what I could do with a set of 10 digital photos that were sent to me from an industrial giant. Going to the Add Picture tab, I selected all 10 and they came in together. I adjusted the size of one and then told the program to make them all the same size.

I placed them where I wanted them and went to the Alpha tab to ensure that the tabs, between left and right sides were all straight. This only took a couple minutes and might have taken at least an order of magnitude longer with PowerPoint. The speed with which I could add captions was essentially the length of time it took to think of what to write and type it in.

It took about 30 minutes to get those images on a single page, complete with labels. I could view this page on screen, print it out with my laser and inkjet printers, use Adobe Distiller to make a PDF, or just save it as a JPEG or other graphics format. Once you have that file, you can send it to others in a form they can view with ease.

Last time that, when you're sending digital photos to others, it's common courtesy and good business practice to arrange and label them instead of just dumping a pile of files and leaving all that up to the recipient. The PDF option can also be used to prepare slides for a presentation.

My next test used a series of pictures to build up a description of a piece of equipment and how it operates. This one was a composite of figures from a variety of sources. Some were from digital cameras, some were downloaded from the Web. Others were taken from 35 mm slides and brochures that were scanned into JPEGs. There was no difficulty mixing and matching them on the same page.

I gained two very valuable lessons going through this exercise. First, if I could make such an interesting collection from those images, I could assemble enough pictures from the Web to make a photo collection from a trip I made to Hawaii a few years ago without my camera. So, I used both Google and AllTheWeb to locate pictures and, over a few hours, managed to collect enough pictures to make a complete photo collection for that trip. I must have succeeded here as people were highly impressed with my photo album and it's one I didn't take any of the shots myself.

Next, if I could do that with Web images, what could I do with those thousands of color slides I haven't looked at in years? Let's face it, the days of sitting in the back in the basement looking at slides are long gone. In the old days, we used to look at them one by one and a slide show could take a lot of time. Who among us has not drifted off into the land of nod from the combination of darkness, good food, and drink coupled with a boring presentation?

My scanner can do transparencies at 600 dpi. That's not good enough for full page prints, but it is adequate for wall size printing. I fired up the scanner and went through a few dozen slides to see what I could find, and started to assemble them into a few pages with Auntie. Instead of viewing them one by one, I could assemble them into a mosaic, with as many as a dozen images on a single page to tell the entire story. With a bit of tinkering to get the most pleasing layout, it took about five minutes to assemble each page. This was an entirely new way to look at those slides, and I found it was rather exciting to mine some of those old trips and family activities.

Is there a negative with Aunt Abigail? There sure is. Now that I've been tempted to resurrect all those old slides, when am I ever going to find enough time to scan them all? I have thousands I'd do get rid of, where will I find enough hard disk space to store them all?

Version 1.2 solves the storage problem with a utility that allows you to transfer those big file sets to CD and recover them when you need it. You can also use that utility to move files around if you decide to change their locations. □



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eSystems

Smaller eMacs get capacity boost
Continued from page 58
(CDD-BWDVD-RW).

All eMacs include a built-in 17-inch flat CRT monitor and a Radeon 7500 graphics card with 32 MB of RAM (the previous eMac lineup used the GeForce 2MX). This Radeon card should be a bit faster than the GeForce, but it's not likely to make a huge difference. The specs of the top model are similar to the previous high-end eMac, but the price is \$400 lower and the CPU 200 MHz faster.

The Combo drive model should be popular with home users, due to its mix of speed, features, and low price. The SuperDrive eMac is still the cheapest way to burn DVDs on a Mac, and the 1 GHz CPU will certainly appeal to gamers.

iBook

The new iBook lineup changes even less. There are still three models and the price drops are smaller than for the eMacs, though still \$100 less than the models they replace. The main change is that the CPU in each iBook is 800 MHz faster, the hard drive is 10 GB larger, and they now all ship with the opaque plastic

case—which we find much less attractive than the older translucent “ice” models.

The choice of optical drives has not changed (still no SuperDrive) and the iBooks have the older, slower version of Airport—which is odd since the eMac was upgraded to Airport Extreme and would thus wireless connectivity would be much more useful in a laptop.



The low-end iBook drops to \$1,499 and includes an 800 MHz G3 processor, 12.1-inch LCD, 128 MB RAM, 36 GB hard drive, and a CD-ROM drive. The 12.1-inch Combo model is \$1,999 and includes a 900 MHz G3 processor, 128 MB RAM, 40 GB hard drive, and a CD-

RW/DVD-BDM Combo drive. The 14.1-inch iBook comes at \$2,299 and includes a 900 MHz G3 processor, 156 MB RAM, 40 GB hard drive, and CD-RW/DVD-BDM Combo drive. A 60 GB hard drive upgrade is available from the Apple Store for \$40 on the Combo drive models. Minimum RAM in the iBooks remains 640 MB total, with 128 MB on board and one available expansion slot.

Another notable feature is that the low-end model of the iBook line used to have half the video memory of the other two, but Apple has included a 32 MB Radeon 7500 Mobility graphics card on all three models. Also, the Combo drive on these new models is a faster version that writes CDs at 34X (up from 36X) and records at 18X.

Aside from the cosmetic issues, these new iBooks represent a good value, especially for students. We expect them to sell well through the summer and, as with previous generations, the 12.1-inch Combo model will probably be the most popular choice due to its small size and weight and attractive price point. © Jon Stevens is a Vancouver-based Mac specialist. You can reach him at stevens@mac.com.

Macs can no longer just talk...

Continued from page 54
account you want to use has the option for logging in from Windows checked.

Now you can establish the network connection.

1. Go to System Preferences, choose Sharing, then click on Windows File Sharing.

2. On the PC, open My Network Places or Network Neighborhood, click on Entire Network, then Microsoft Networks, then Workgroup. There you'll see an icon named Simba something-or-other (the exact name depends on the version of Simba and the name of your Macintosh), that you Macintosh.

3. Double-click the icon and log in with your name and password.

You should now have access to your account's home directory on your PC.

The easy way

If you consider this just a little too much work, there are companies that would be only too happy to streamline things for you—and throw in a few extra features. More on that next month. □

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Separators & Bold Functions

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Toolbar, menu tricks for Word

Hide toolbar buttons • You can move the buttons from one visible toolbar to another by holding the ALT key as you drag the button from one toolbar and drop it onto the other toolbar. The same process works if you want to move a button to a new position on the same toolbar. To copy the button, hold ALT + Control as you drag it. To remove a button from a toolbar hold the ALT key as you drag it away from the toolbar and drop it in the editing area.

Reset a toolbar • Similar to resetting the Menu bar, you can reset any toolbar (and restore it to its original look) by right-clicking the toolbar, selecting Customise, Toolbars tab, then locating and selecting the toolbar you want to reset. Click Reset, then answer Yes when prompted to reset, and click OK.

Reorganize the default menu and toolbar settings • By default, the Standard and Formatting toolbars share a single row on the screen and they, as well as the menus, operate on the most-used options show at the top of the menu and the left of the toolbars. Unused options are hidden from the menu until they have been opened a second or two. You can set the toolbars so they have a row each and ensure that all menu items appear in the menu as soon as they are opened. To do this, choose Tools, Customise, Options tab, and enable the Show Standard and Formatting Toolbars On Two Rows checkbox and the Always Show Full Menu checkmark. Click OK to confirm your choice.

Styles on toolbar buttons • Add your favourite styles to toolbar buttons to make them easier to access. Begin by formatting a paragraph in the desired style. Next, right-click any visible toolbar and choose Customise, Commands tab, and from the Categories list, select Styles. In the Commands list, locate the style and drag it up onto a toolbar. Right-click the new button and alter its name, if required.

Delete a menu command • To remove an item from a menu, press ALT + Control + A (dash) and the mouse pointer will change shape to a black bar. Click the menu to remove the item. If you make a mistake, you can restore the entire menu bar to its original state (but you will lose any other customisations you've made). To do this, right-click any toolbar and choose Customise. Click the Toolbars tab and locate the Menu bar option. Click to select it and click the Reset button. When prompted, answer Yes if you want to reset changes made to the Menu Bar. Then click Close to finish.

Add a command to a menu • Menus are just like toolbars, so almost anything you can add to a toolbar can also be added to a menu. To do this, right-click a toolbar and click Customise, then select the Commands tab. In the Categories list, locate the category of item you want to add to the menu and from the Commands list, drag the item up and hover the mouse over the menu bar to add it. Wait until the menu opens, hover down and watch as the mouse pointer changes to a bar indicating the position the item will appear in the menu. Let go the mouse when the item is in position. You can right-click it to change certain properties if desired.

Separators on toolbars and menus • You can add a separator bar on a toolbar if you first locate the button that appears immediately to the right of where the separator bar should appear. Hold the ALT key as you drag this button to the right a little way and drop it so it just overlaps the left edge of the next button. A separator bar will appear in the space. To add a separator bar to a menu, right-click a toolbar, click Customise, and open the menu you want to add the separator to. Right-click the button immediately below where you want the bar to go and choose Begin a Group.

Move toolbars • You can copy a custom toolbar that has been created for one template to another so it can be used with the second template. To do this, open one of the templates and choose Tools, Customise, Macros, Organize, then select the Toolbars tab. Click the Base this button for the file that opens first one of the templates, then click Open File and open the second template. You can now copy toolbars from one template to another using the dialog box options. You can also use this dialog box to copy AutoText entries and Macros.

—Wesley Bradley



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Why I don't want a DSLR... yet

By Gene Wilhelm

Digital single lens reflex (DSLR) cameras are the most coveted items on the photo scene. The recently released Canon 10D broke new ground in pricing and the just announced Pentax 'n1 D may cost even less. With interchangeable lenses, large sensors, high megapixel counts, fast focus, no shutter lag, low noise at high ISO, true through-the-lens optical viewing and creative control, plus the ability to produce great-looking 16x20-inch prints, how could anybody not want one? I want one, of course. I just don't want one... yet.

The factors that temper my desire to plunk down plastic for one of these beauties are cost, lens-cropping issues, size and weight, obsolescence, and return on investment.

Cost

To say the Canon 10D has broken price barriers is not to say the camera is cheap. It simply means the price has dropped from the photo equivalent of Rolls Royce levels down to BMW levels. Any way you look at it, \$2,500 for a camera body with no lens is a luxury purchase. Add a quality standard zoom lens and you're quickly looking at at least \$3,500 for the basics, before taxes.

DSLRs create huge images, so add a minimum of an additional \$1,000 for storage cards. Toss up a few other accessories, batteries, and cases and you're into the \$5,000 range for the low-



end-priced DSLR on the market. This makes the top-end, all-in-one digitals such as the Canon G3, Nikon 5700, Minolta TR1, and Sony F717 look downright affordable.

Cropping issues

DSLR bodies are built around 35 mm SLR form factors and take 35 mm SLR lenses. Unfortunately, most current DSLRs contain a sensor that is smaller than a frame of 35 mm film. This introduces cropping. Depending on the sensor, cropping will create a multiplication factor ranging from 1.5 to 1.7, turning a normal 50 mm lens into the rough equivalent of a 75-83 mm moderate telephoto.

Although advantages on the telephone side, this creates problems for wide angle. A 24 mm lens equivalent on a Canon 10D requires a 34 mm standard SLR lens. Obtaining serious wide angle coverage is challenging and expensive. Because of the cropping factor, you simply cannot get a 28-700 mm zoom equivalent in a single lens, as you can

To say the Canon 10D has broken price barriers is not to say the camera is cheap. It simply means the price has dropped from the photo equivalent of Rolls Royce levels down to BMW levels.

from some of the high-end, all-in-one digitals.

The technological answer to this annoying cropping issue is simple: build a sensor that is exactly the size of a frame of 35 mm film. That has already been done and the results are stunning. Behold the Canon 1Ds, arguably the finest DSLR money can buy at just over \$12,000 for the body only.

Size and weight

I prefer small, relatively lightweight cameras to large, heavy ones. The aforementioned Canon 1Ds has the size and heft of medium-format gear. The Canon 10D and Nikon D100 models are beefy. The new Pentax DSLR appears from specs to be a smaller, lighter camera, in the Pentax 35 mm tradition. Unfortunately, it has not yet made it to market.

Obsolescence

Digital cameras are like computers: last month's model is old news, last year's model is history (at an amazing rate).

folks were buying up Canon D60s for a low price of \$3,500 for the body. It is already out of production. And the D60 had quickly eclipsed the previous D60. No one knows the lifespan of these cameras. Will anyone be able to get D60 parts five years from now? Will any technician remember how to repair them? If you tend to own cameras for a long time, the obsolescence issue bodes you pause.

Return on investment

Most professional photographers have no hesitation about getting DSLR gear. It's a business cost that gives them a good return on investment. Pros who shoot thousands of rolls of film per year can quickly recoup film and lab costs by switching to digital. In fact, they often need digital just to compete and stay in business.

But as an amateur photographer, DSLR gave me a poor return on investment. I already own a film scanner and have an all-in-one Canon G2 digital. Between scanned scans from my 35 mm Olympus OM 1 SLR and the excellent images I get from the G2, my digital photography needs are fairly well met. I would enjoy the extra megapixels and dens images of a DSLR, but it's difficult to justify the cost of one.

When DSLR bodies drop in price to what my Canon G2 cost new, I may be ready to move on. Until then, I'd rather be making images than making payments. ☐

Gene Wilhelm is a Toronto-based writer and photographer. He can be reached at gene@earthlink.net.

Picture Window Pro 3.1: The photographer's photo editor

By Gene Wilhelm

Photoshop 7 is a fine, if sometimes cumbersome, product for editing digital photographs, but have you ever wished for something that would load faster, use fewer system resources, and fully edit 16-bit-per-channel images as well as being cheaper to own and upgrade? Meet Picture Window Pro, one of the best known but most powerful Windows photo editors.

Picture Window Pro 3.1

From: Digital Light & Color, www.dlci.com
Price: \$329.95

Picture Window Pro 3.1, from Digital Light & Color, is the creation of Jonathan Sachs, co-founder of Lotus Corp. and author of the original Lotus 1-2-3. Sachs, a keen photographer, wanted an editor designed specifically for digital photographs without extraneous graphic arts features. Not finding one on the market, he wrote his own.

The result is a feature-rich product with a unique personality and workflow. It's lean, fast, and relatively inexpensive (the standard version is even cheaper at \$249.95). Picture Window Pro is described as being "written by photographers for photographers," which means it drops even with features used primarily by advertising and print shops, such as four-color separations, dithering, and CMYK editing. It focuses instead on features such as color balancing, perspective correc-

tion, barrel-distortion correction, chromatic aberration correction, tiled printing, and the exact paucity of photographic accessories—cropping, zoom, curve adjusting, leveling, dodging, burning, masking, spotting, blurring, and sharpening.

When you initialize PWP, the first thing you notice is that it pops open the screen instantly, ready for use. Photoshop 7, in contrast, is lazier about loading.

Continued on page 72

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Photoshop in the raw

If you are an advanced amateur photographer you may be exploring the "raw" image file format some cameras offer. The raw image file is often referred to as a "digital negative" since it represents data in its raw state before it's handled by the camera's image processor.



There are several benefits to working with raw files. A computer has more processing power than a digital camera so computer-based processing can be more robust. Since some of the camera settings (e.g., colour balance and saturation, image hardness or softness, and contrast) have not yet been applied in a raw file, you can change your mind or make adjustments after you've taken the picture. Raw files offer some protection against obsolescence—as image-processing programs improve, they can be used to process the raw data into better photos. Raw files can also support 16-bit colour, which allows you to start with richer colour information.

The main disadvantage of raw files has

been inconvenience. You need to convert a raw file using special software before you can edit it in an image editor. Manufacturers don't use the same raw format, and consequently you must use the converter supplied by the camera maker. Some third-party developers have created converters that work with more than one raw format, and we were intrigued to hear earlier this year that Adobe was developing a raw conversion plug-in that would directly feed within Photoshop.

We've been working with a beta version of the Photoshop raw plug-in and it's pretty slick. When you open a raw file, you are presented with a preview pane that has a slide bar image window to help you see adjustments in real time. A number of sliders along the side let you adjust various image properties, including colour temperature (in Kelvin degrees), exposure compensation, brightness and contrast, sharpness, and colour saturation. Drop-down boxes along the bottom allow you to set parameters such as the colour space. We could work with Olympus C350 and Canon 5D raw files, but not the raw files produced by a newer Canon 550 camera. However, we were using beta software, and Adobe says it's committed to supporting every raw format.

The plug-in will be included in future versions of Photoshop. For now, if you use Photoshop 7, you can download it from the Adobe Web site (www.adobe.com) for US\$99.

—David Zucker

A Photoshop guide just for photographers



The Photoshop Book

For Digital Photographers

Author: Scott Kelby

Publisher: No Starch Press

ISBN: 0-7359-1034-0

Softcover, 336 pages, 2003

Price: \$24.95

Photoshop 7.0 is deep and wide, capable of every kind of manipulation you'd care to administer to a bitmap image. Books on Photoshop seldom focus on the tools and techniques from a purely photographic point of view, however, since most have been written for graphic artists in general, not photographers in particular. That's why *The Photoshop Book for Digital Photographers* is such a treat. It covers exactly what the title suggests. You'll find no discussion of mean glowing edges or chromatic effects, but you will find lots of information on the kinds of things one might typically want to do with a photographic image.

The book approaches the task from a few directions. Parts of it discuss Photoshop tools and techniques (for example, masks, channels, sharpening) and how they are relevant within a photographic context. Other parts start with common photo manipulation techniques (for example retouching and general image correction) and how they are accomplished in Photoshop.

There is also some discussion of factors unique to images taken with digital cameras, for example, how to reduce digital noise, a small raw often exhibited in underexposed digital images, or the hints and ways of editing 16-bit colour images.

That some cameras are capable of creating the book covers Adobe's recently introduced raw plug-in, which will be of interest to anyone who uses the raw mode available in some cameras from Canon, Fujifilm, Minolta, Nikon, and others. It's found an inconsistency here the book says you can go to the Adobe site and download the raw plug-in for free, but we attended an Adobe seminar several weeks ago and were told it would cost US\$99, which is also what the company's Web site states.

A couple of small points: while all of the screenshots in the book show the Mac OS X interface, Windows users needn't worry. Author Scott Kelby points out that the Photoshop interface for Mac and Windows is nearly identical, and he gives both the Mac (Commanders of Shift, Option and Command) and Windows (Shift, Control, and ALT) keyboard shortcuts for various procedures. We found the author's advice slightly quirky at times, but easily overlooked considering the wealth of useful information the book contains.

At around \$1,100, Photoshop 7.0 is more expensive than most of the digital cameras being sold today (although if you qualify for the Photoshop upgrade, you only pay about a quarter of that). Whether you, as a digital photographer, really need Photoshop is debatable, especially if you are doing your own printmaking to an output printer and don't need to work within a commercial printing or graphics environment. A less expensive program like Photoshop Elements or Just Start Stop might serve you just as well. But if there's no taking you out of the big 'ol, then you owe it to yourself to check out this book.

—Gerald Brooks

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By David Tetzlaff

Do you need a five megapixel camera? We found our own answer to that question when we wanted to make a letter size print of just a small portion of an image we took with the Olympus Camera C-5050. The whole image, at 2,600x1,920 pixels, would easily make a good quality 11x14-inch print from a tabloid format subject. That means you could take just a portion of the entire shot and still make a decent-sized print.

This year, five megapixel seems to be the ending for fixed-lens digital cameras (higher pixel counts are available in the digital single lens reflex models that offer interchangeable lenses, but these start at around \$2,500, just for the body). The three models reviewed here are representative of the middle ground, even though they are quite different in design.



PowerShot S30

1000, L3000, www.olympus.com

Price: \$399

Canon chose the mid-range "3" line to introduce its first five-megapixel consumer camera, instead of its "G" advanced amateur series. By doing this it manages to keep the street price below \$1,000, but psychological barriers that cause many consumers to balk.

The S line is a mature one, and if you shopped for a digital camera last year you may have encountered Canon's S30 and S40. Outwardly the S30 is identical to them, but with several internal improvements.

Canon developed a new image processing system called DIGIC (Digital Image Integrated Circuit) for its EOS 350D digital single lens reflex camera, and the S30 benefits by also using it. DIGIC incorporates a parallel processor that completes tasks faster. This has a couple of benefits, says Canon. More

sophisticated image processing algorithms can be used without slowing down the camera's responsiveness, and processes are computed more quickly overall, which reduces battery consumption.

Another improvement in the S30 is the incorporation of what Canon calls SAIFS (Intelligent Scene Analysis based on Photographic Space). This allows the camera to analyze a scene and predict the optimum settings. The result is faster autofocus and auto exposure performance. The S30 also uses a revised autofocus system, called 9-point AF/AF, which allows greater latitude in picking an area other than the center of the scene to establish sharp focus.

The S30 is available in silver or black. Canon Canada sent us the silver model for review (the black model is seen here). It's a sleek but squat design, nearly twice as long as it is tall at 11.25x8.6x2.2 cm (4.4x3.4x.85 in.) and the all-metal body feels very solid. The camera fits nicely in a jacket pocket and the sliding cover protects the lens without the need for a separate case. Canon nixed image quality down a couple of generations ago, and the S30 photos are very pleasing. Even though it's designed like a point and shoot camera it offers advanced amateur features, such as a good range of manual controls and the option of saving images in raw format.

A few quibbles (initially, because the case hangs as a shoe-horn design but as long as a standard camera, I don't care for the balance, plus the smooth all metal case feels slippery). I also found the front surface of the LCD viewfinder reflected a lot of glare outside.



Camera C-5050

1000, Olympus, www.olympus.com

Price: \$479

Olympus Canada C-5050 follows the ergonomic footprints of the C-4040. It's a variation of the basic rangefinder shape cameras have used for decades. There's no attempt to make it the smallest or the fastest, but relying on a time-proven design has a major benefit: the C-5050 is extremely comfortable to hold and feels very well balanced. The handgrip which doubles as the battery compartment for four AA cells (four Nickel Metal Hydride batteries and a charger are included with the camera), is covered with a rubbery surface that, combined with a thumb channel on the back, provides a very secure grip.

The LCD viewfinder on the back is hinged and can swing 90 degrees up or about 30 degrees down. This allows you to compose a shot with your camera higher or lower than eye level, and it is useful, I wish all cameras had it. However, the screen's off-axis surface produces lots of glare outdoors. Some manufacturers use matte surfaces on their screens, which improve their readability.

Armed at the intermediate hubbub, the C-5050 has a full set of manual controls. There's a thumb wheel just under the main mode dial, and using it in combination with the buttons allowed around the surface of the camera allows you to page through various options like the type of autofocus. The camera has a hot shoe for those who want to supplement the built-in flash unit with a more powerful external unit. Another feature noted at the advanced user is the ability to save files in raw format, often referred to as "digital negative" file.

The C-5050 has a few unusual features. Even though its sensor contains five million pixels, it has a special mode that will create 3,200x2,400 pixel—or 7.6-megapixel—images. Like some other cameras, it includes a panorama assist mode, which helps you take a series of photos for later stitching into one wide (or tall) image. What's unusual is the auto red-eye grid lines it places within the LCD viewfinder to help you set the proper amount of overlap from frame to frame. If you have CompactFlash or SmartMedia memory cards from some other device, you'll be able to use those with this model, which also accepts xD cards (a 32 MB xD card

In review: Mac typography, PowerPoint tutorial

Crash course on typography not just for Mac users



The Mac is Not A Typewriter
Second Edition
Author: Robert Williams
Publisher: Peachpit Press
www.peachpit.com
ISBN: 0-13-029363-4
Softcover, 88 pages, 2003
Price: \$20.95

There's a generation or two of people who have never used a typewriter and if that includes you, don't worry. This book isn't about typewriters at all, but about how to make the type you generate on a computer look good. Author Robert Williams' book is for the subject of typography is clear. "Typography isn't it our children—every one of us who uses the computer to create text, on a page—to avoid the highest possible level of typographic quality is in this changing world."

The reference to typewriters is about the conventions we developed and still use to indicate changes in type—underlining a word to indicate italics, for example—so if a

device that could only produce one set of characters. With a computer, we have dozens of type styles and weights to choose from, along with special characters and symbols. In short, we have access to the tools that, before the rise of personal computers, were only available to professional typographers. Nevertheless, the conventions from the typewriter days persist, though already says Williams, who proceeds to give a crash course on typography.

The presentation is simple and direct. Williams goes through a form of typographically correct character forms and how to create them on your Mac, but also presents broader issues of style and aesthetics. As the Mac reference in the title implies, the book is written specifically for Mac users and directions for accessing special characters are given using the Mac keyboard (the Option key figures largely here), even though most can also be accessed on a Windows system (about not as simply) using the ALT key in combination with other keys or cut/paste and pasting the characters you want using the CharacterMap utility.

Nevertheless, even if, as a Windows user, you can't directly see the information on

the keyboard combos, just the overall guidance on typography is easily worth the \$20 cover price.

—David Sontz

Concise guide provides easy approach to PowerPoint 2002



Teach Yourself PowerPoint 2002
Author: Andrew McGee
Publisher: McGraw-Hill
www.mcgraw-hill.com
ISBN: 0-07-140374-0
Price: \$20.95
Softcover, 300 pages, 2002 pages

Information content: ★★
Readability: ★★ ★★
Overall rating: ★★ ★★

Intended for beginners

The Teach Yourself series prides itself on teaching concise and to the point, giving the reader the basics on how to get started with a particular program. These clear, pocket-sized books will hold a

beginner's hand as they work through the practical basics of a program. If any further needed to learn PowerPoint in a hurry, I'd give her this book.

The books in this series read like concise product manuals, taking the reader step-by-step through the most common features and functions, displaying plenty of screenshots along the way to help you accomplish your goals. They assume the reader has next to no knowledge of a given program—even such basic operations as cutting and pasting, common to all Windows programs, is covered here.

That's not to say it's too basic, but it does cover the essentials. It does a decent job of introducing such basics as the drawing and charting features, using tables, clip-art and sound, creating slide masters, and presenting a slideshow. In the end, you are well on your way to creating sophisticated presentations using PowerPoint 2002.

The Teach Yourself titles would make good replacement manuals for any given product, save for the fact that most software days these days eschew printed manuals in favour of typically more clearly online versions.

—Scott Schreiner-Roberts

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AD INDEX

| | | | |
|-----------------------------|----|----------------------------|----|
| 1 Data Corp | 83 | Interact LightSpeed | 24 |
| 3i Computers | 82 | Intertech O.A. | 72 |
| A - Risk Computer | 57 | Iridigm Technology Ltd | 80 |
| A & I Canada | 30 | J & L Multimedia | 40 |
| A Crazy Computer | 58 | Jen View Electronics | 58 |
| ActionFront Data Recovery | 82 | Uplay Clocked | 50 |
| ADDA Computers | 82 | Legend Computers | 50 |
| Aero Monitors | 87 | Leemark Canada | 29 |
| A LIME Computer | 46 | LG Electronics | 11 |
| Amtec Computer Technology | 73 | Look Hosting | 87 |
| A-Power Computer Ltd | 83 | Lpxx Communications | 27 |
| Ask Technologies | 58 | Manual Labour Services | 84 |
| ATDF Computer | 7 | MDC Canada | 86 |
| Avicomm.com | 52 | MFI Internet INC | 44 |
| BC Compulsive Inc | 82 | Micro Content | 18 |
| Bestag Computers | 74 | Microsoft Canada | 15 |
| Black Warehouse Ltd | 41 | MSI Microcos | 55 |
| CGI Computer Mail | 88 | Multimedia Technologies | 84 |
| Canadian Computer | 53 | Natlink Computers Inc | 16 |
| CEL Data Recovery | 82 | New Type Computers | 45 |
| CE Computer Outlet | 42 | NexGen Computers | 68 |
| City Computers | 49 | Nogonopar Web Ideas | 52 |
| CityTech College | 78 | No Age Computer Plus | 77 |
| Clepus 3000 | 39 | PC World Computer Ltd | 35 |
| Compaq Systems | 47 | Phase 1 Systems | 8 |
| Cristal Computer | 38 | Pinnacle Systems | 14 |
| CSP Computer | 58 | planetinfinity.com | 61 |
| Cyberex Cartridge Plus | 80 | PowerPoint Computer | 43 |
| Digital | 85 | Progress Media | 82 |
| DataRecoveryBC.com | 82 | Rack Computer | 37 |
| DCC Technologies | 39 | SRI | 80 |
| Dell Canada | 2 | Samsung Electronics Canada | 3 |
| Dell Financial Services | 20 | Seve Ge Cartridge Plus | 80 |
| DW Technology | 82 | Sonnet Industries Ltd | 83 |
| EDS-ECW Inc | 35 | SLAC Computer | 80 |
| ElitePC Computers | 32 | SOHO Skyway | 83 |
| emotio.ca | 32 | Sony Computers | 35 |
| Elitex Computer | 58 | Swanson Agencies | 82 |
| Elosoft | 52 | TecCube Technology | 84 |
| Epson Inc | 40 | Topyack Computer Inc | 43 |
| EverSource Technology | 38 | USR | 8 |
| Fast Choice Recording | 31 | Vanco Computers | 83 |
| Fly Computers | 25 | Vastech Computer | 51 |
| Flower Computer | 25 | Venerant | 5 |
| Frappo Canada | 4 | Worldwide Computers | 79 |
| Ge Systems | 83 | www.chrisian.com | 82 |
| Genix Computers | 26 | www.olympus.ca | 30 |
| Halkan Spieristes | 69 | | |
| Mail Price Computer Books | 69 | | |
| Hitech Exchange | 83 | | |
| ICE Computer Inc | 33 | | |
| in2net network inc | 31 | | |
| Intelligence Technology Inc | 38 | | |
| Intelligent Batteries Inc | 78 | | |

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< DIGITAL PHOTOGRAPHY >

The slideshow goes digital

By Sean Connolly

One of the nice things about the digital photography revolution is that it's made it very easy to be selective about your prints. You can take a lot of photographs without worry about whether a shot is wasted, because you don't have to spend money for developing, and you can choose which photographs—if any—you want to print out. In fact, many people with digital cameras choose not to make prints at all, viewing the photos only on the PC.



SanDisk Digital Photo Viewer

From: SanDisk Corp., sanisk.com
Estimated price: \$100 (estimated from US\$60)

Unfortunately, that eliminates one of the joys of photography: showing the pictures to friends and family. It's pretty much a tradition to rush home from the photo shop with a stack of envelopes, then sit in a circle while the prints are handed from person to person. With digital photos, you're often forced to gather around a computer monitor to look at them, which may bring people a little closer together than they'd like.

With the compact Digital Photo Viewer, SanDisk has taken a cue from the past for the solution to this modern problem: the slideshow, but instead of requiring a special projector it uses the most entertainment device in the modern household, the television.

Five megapixels for big shots

Continued from page 22.

weight offset that somewhat.

Also it's the only one of the three that doesn't include a raw file format option. It does save images as uncompressed TIFFs, but they are so big you won't be able to save even one on the 16 MB SD card that's included with the camera, plus it takes nearly 30 seconds for the camera to process a shot of that size.

Many manufacturers add special features to distinguish their cameras from their competitors, and in Pentax's case, it's a 3D mode that helps you create

The Digital Photo Viewer connects to your TV using either composite video (RCA) or S-Video output, and has a selector switch on the back allowing you to easily switch between NTSC and PAL formats.

The front of the Digital Photo Viewer has four slots for digital camera media, including Type II CompactFlash (compatible with 128-MB memory), SmartMedia, MemoryStick, and SecondDigital/MultiMedia Card.

You can take the digital memory card out of your camera and insert it straight into the Digital Photo Viewer; or if you want to create a presentation, select the photos you want on the PC first, then write them to the memory card. You can even use multiple memory cards at the same time, then select the appropriate card using the included remote control.

The remote control offers all the basic functionality you'd expect for a slideshow controller, including the ability to go forward, backward, set up an automatic interval for images to refresh, and to pause a slideshow in progress. It has a few nice digital tricks too, like instant reorientation of pictures from landscape to portrait (and vice versa), and the ability to zoom in and pan around an image. Another nice touch is that once you've reoriented a photograph, it will appear in that orientation the next time you view the image on the Digital Photo Viewer. The device can also automatically find the images on your memory cards and create a slideshow for any JPEG images up to six megapixels.

The Digital Photo Viewer makes it very easy to view digital photographs in a more casual way, when you're in a group. Of course, it's still up to you to make the slideshow interesting. □

stereoscopic pictures. The prints carry two nearly identical images side by side. When you look at them in a special viewer (a plastic one is included with the Optia) the illusion of 3D depth is created.

Other choices

We've looked at other five-megapixel cameras this year: the Minolta Damage 700 (\$2,000), Nikon CoolPix 5700 (\$1,500), and Sony DSC-F717 CyberShot (\$1,200) in February, and the Olympus C-50 (\$900) in April. □

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